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NINETEEN NEW DIPTERA FROM AFRICA

By C. H. CURRAN

In the following pages descriptions of apparently undescribed African Diptera are given, together with the description of a new genus of Tachinidæ. Most of the flies discussed herein were collected by Dr. Joseph Bequaert during an extended trip to the Belgian Congo and Liberia and it is intended at a later date to prepare a detailed report of the Diptera collected by him. Unless otherwise stated, the types of the new species are in The American Museum of Natural History.

Pipunculidæ

Pipunculus bequaerti, new species

Black, the abdomen opaque with the third and following segments broadly shining black apically; legs yellow; stigma complete; wings light brown. Length, 6 mm.

Male.—Eyes touching for a distance greater than the length of the frontal triangle which is silvery, with a rectangular black spot below when viewed from above; vertical triangle shining black; face narrow, silvery white; labellæ and palpi reddish. Occiput gray pollinose, brown above. Antennæ reddish yellow, the third segment not acuminate; arista black, the basal thickening of moderate length.

Thorax black, brown pollinose, the notopleura gray at sides; humeri yellow, mesopleura blackish in front; a row of short, fine dorsocentral hairs and some hair in front of the notopleura. Scutellum brown with row of longish marginal hairs.

Legs, yellow, the coxæ brown, gray pollinose; apical three tarsal segments brownish, the apex of the fifth segment reddish. Pulvilli of medium size. Posterior tibiæ strongly swollen at the middle, with three bristles on the swelling in front. Hair of legs black.

Wings strongly tinged with brown; stigma brown; anterior crossvein at basal third of discal cell. Squamæ whitish. Halteres yellow, the knob reddish brown apically.

Basal abdominal segment gray pollinose except the narrow base; abdomen opaque black, the apex of the second segment cinnamon-brown, of the following segments very broadly shining black, with a gray pollinose spot on the sides. Genitalia brown pollinose, the forceps very long and curved upwards at almost right angles near their middle.

HOLOTYPE.—Male, Lubutu, Congo, (J. Bequaert).

Pipunculus lubuti, new species

Very similar to bequaerti, new species, but the abdomen opaque brown and black,

without shining areas, the ultimate section of the fourth vein is strongly curved, etc. Length, 6 mm.

Male.—Front with yellowish pollen and a large, rectangular black spot below when seen from above; pollen of face yellowish white; head otherwise as in bequaerti.

Thorax and legs as in bequaerti, the scutellum with a few scattered hairs on the disc.

Wings light brown, paler posteriorly. Squamæ yellowish; halteres reddish yellow, the apex of the knob slightly browned.

Abdomen opaque; first segment, posterior half or more of the following segments, and the lateral margins cinnamon-brown; bases of the segments black, the black bands broadly produced in the middle almost to the apices of the segments; fifth segment rather shining on the apical half except laterally, the fourth and fifth with small yellowish-gray lateral spots. Genitalia black, moderately brown pollinose, the lamellæ hidden but probably very similar to those of bequaerti. Hair of abdomen sparse, conspicuous, the sides of the first segment with a row of coarse black hair.

Holotype.—Male, Lubutu, Belgian Congo, (J. Bequaert).

Pipunculus pallidipleura, new species

Black, the abdomen shining; pleura luteous; antennæ yellow. Length, 4.75 mm. Male.—Eyes contiguous for a much longer distance than the length of the frontal triangle which is cinereous pollinose; vertical triangle black; face white, narrow; occiput brownish gray; anterior facets not greatly enlarged. Antennæ yellowish, the third segment short acuminate; arista black, yellow on the short, swollen basal portion.

Mesonotum black, thinly brown pollinose, the sides and pleura gray; broad lateral margins and the pleura luteous; pectus brown. Scutellum brown, with inconspicuous brown hair on the border.

Legs, including the coxe, yellowish, the apical tarsal segment pale brown; pulvilli small. Hair of tibiæ yellow; the posterior pair swollen in the middle.

Wings tinged with grayish brown; anterior crossvein at basal third of discal cell; stigma brown; ultimate section of fourth vein gently bowed. Squamæ yellow; halteres reddish, with rusty brown apex to the knob.

Abdomen very shining, black, the sides of the second to fourth segments very broadly translucent brownish red; first segment gray; fifth large, broad, black; genitalia thinly brown pollinose, the outer forceps reddish, subtriangular, rounded apically. First segment without comb of black hair on sides.

Holotype.—Male, Mt. Ruwenzori, Congo, (2300 meters), (J. Bequaert).

Pipunculus liberia, new species

Black, not shining; stigma complete, dark brown; antennæ black; femora black with reddish apex; wings cinereous hyaline. Length, 4.5 mm.

Female.—Front narrow, with parallel sides, grayish-white pollinose on lower half, becoming brown pollinose above, shining behind the anterior ocellus; face narrow, silvery; occiupt gray pollinose, brown on upper fifth. Antennæ black, the third segment long acuminate; thickening of arista about four times as long as its thickness.

Thorax brown pollinose above, almost black on the median third or more, the sides in front of the suture broadly gray; humeri yellowish. Pleura grayish pollinose,

a very broad band occupying the upper half from the middle of the mesopleura to the posterior margin of the thorax, brown. Scutellum blackish brown, bare.

Legs: trochanters, apices of femora, tips of tibiæ and their basal two-thirds and the basal four tarsal segments, reddish; femora black, grayish pollinose, polished beneath, the hind pair polished behind; apical third of tibiæ and the fifth tarsal segment, black; pulvilli very large, orange; claws long, orange with black tips.

Veins blackish, yellowish brown at base; anterior crossvein situated behind tip of auxilliary vein, somewhat before the middle of the discal cell; ultimate section of fourth vein rather gently curved, the apical cell narrow at tip. Squamæ whitish yellow. Halteres reddish, with brown tinge, the knob partly reddish brown.

Abdomen dull brownish black, the tips of the segments extremely narrowly pale, each segment on either side behind with a transverse, gray pollinose spot, the spots on the fifth segment occupying the posterior third, those on the preceding segments successively narrower; the spots on the sixth segment large, oval, or at least a little longer than wide, longitudinally placed; the first segment grayish, the base of the second more or less grayish in some views. Basal segment of ovipositor thinly gray pollinose, the second segment shining brown, the piercer reddish, reaching to the base of the second segment. Sides of first segment with comb of black hairs.

Holotype.—Female, Paiata, Liberia, October, 1926, (J. Bequaert).

The species comes closest to *katonæ* Kertesz but differs in the color of the legs, in having very large pulvilli, the very narrow pale segmental apices, etc. From *trochanteratus* Becker it differs in having gray spots on the second to fifth segments, more than the basal half of the tibiæ yellowish and longer, red (not black) piercer.

Syrphidæ

Microdon bequaerti, new species

Front of male at narrowest point not as wide as ocellar triangle; first antennal segment almost as long as the following two combined; thorax and scutellum with golden pile; scutellum with strong spines. Length, 12 to 15 mm.

Male.—Head brownish or ferruginous, the sides of the face very broadly reddish or brownish red; pile of head pale yellowish, of occiput and front with golden tinge and more reddish, a few black hairs on the ocellar triangle which is moderately large, equilateral and situated in the middle of the upper section of the front. Antennæ elongate, black, the first two segments with black hair, the third with parallel sides on the basal four-fifths, sharply rounded at upper apex; arista as long as third segment, reddish.

Thorax ferruginous or brownish red, the disc mostly black with a pair of broadly separated, slender lines on the dorsum, the borders of the mesonotum and the scutellum wholly reddish. Pile golden reddish, some black hair on the mesopleura; plumula, fringe of posterior spiracle and the long pubescence on the metapleura, brown.

Legs brown or ferruginous, black-haired, the hair thick on the tibiæ, partly reddish on the front pair; tarsi reddish, with golden hair, the posterior basitarsi very much swollen, almost cylindrical.

Wings brownish, the posterior half except broadly along the veins brownish gray or pale brown, the wings more or less luteous basally; anterior crossvein at basal

fourth of discal cell; apical crossvein recurrent, gently bowed. Squamæ pale yellowish, with golden-yellow fringe; halteres yellow.

Abdomen dark reddish, the fifth segment, the sides of the fourth very broadly, and the apical half of the second sublaterally, brownish black, the broad middle line also blackish as far forward as the middle of the second segment. First and second segments yellow pilose, the second with some black pile posteriorly towards the sides; third segment with short, black pile, across the middle with a narrow, interrupted band of tawny pile which broadens out to form triangles on the posterior half laterally; an arch extending forward from the anterior part of the fifth segment to the posterior third of the fourth and the very broad apex of the fourth, less broadly so laterally, tawny pilose, the sides of the abdomen wholly tawny or golden-reddish pilose. Venter reddish, broadly black laterally. Genitalia ferruginous. Abdomen robust, broad basally, hardly half longer than wide.

Female.—Front widening from vertex to below level of antennæ, brownish with the orbits and median vitta reddish; pile yellowish, a band of black hair across the ocelli, face pale yellowish, the cheeks darker; first antennal segment somewhat reddish basally; thorax paler and with yellowish pile; basal segment of posterior tarsi not swollen. First two abdominal segments pale brownish yellow, yellow-haired; apical three segments black, black-haired, each with a very broad band of yellow pile, that on the fourth produced subtriangularly forwards to the middle of the segment; sides of abdomen pale-haired except towards the posterior margin of the fourth segment.

HOLOTYPE male, ALLOTYPE female, and PARATYPE female, Gbanga, Liberia, September, 1926, (J. Bequaert).

Microdon liberiensis, new species

Metallic greenish blue, rather thickly pilose; antennæ very short; abdomen almost circular in outline from dorsal view; scutellum deeply emarginate apically but without distinct spines. Length, 6.5 to 8 mm.

Male.—Face and front narrow, the front narrowing from the vertex to the anterior third, where it is less than half as wide as at vertex, the moderately large ocellar triangle situated at the upper third of the front; face widest just below the antennæ, in profile gently convex, most prominent above, thickly white pilose. Occiput with white pile, the front with a few white hairs in front of and opposite the ocelli; pile of front black. Antennæ black, the basal two segments with black hair; the third segment brownish, gently convex below, strongly oblique on lower apex, scarcely twice as long as wide; first segment slightly longer than following two combined; arista about as long as third segment; whole antenna not nearly as long as length of head.

Thorax clothed with brassy yellow pile; humeri brownish red, the pleura ferruginous or brown with more or less metallic green tinge, the incisures more or less broadly brownish yellow.

Coxæ brown, black-haired, the posterior pair whitish haired. Fermora black, their tips reddish, the hair black, the apices narrowly yellow-haired. Tibiæ yellow on basal half or more, black apically, the pile white, black only on the under surface of the apical third of the middle tibiæ and the anterior surface of the apical half of the posterior tibiæ. Tarsi brown, black-haired, the first segment of the posterior pair not swollen.

Wings strongly tinged with brownish gray, the crossveins clouded with brown; apical crossvein recurrent, almost straight; anterior crossvein situated at basal fifth of discal cell. Squamæ, their fringe and the halteres pale yellow.

Second abdominal segment about half brownish yellow or luteous, the posterior border, median vitta and the very broad sides metallic, the pale color variable in extent, sometimes less extensive, sometimes covering almost all the segment and spreading on to the third segment. The pile is yellowish on the basal two segments; on the second there is a rectangular patch of outwardly directed pile on either side of the median line, while posteriorly in the slightly impressed sublateral depressions there is a triangular patch of pile which is directed inward and backward. Pile of third segment black, the posterior third with a broadly interrupted band of whitish pile, the basal corners with a small triangle of yellowish-white hair. Posterior half of the fourth segment, broadly interrupted in the middle, and the lateral borders, white pilose, the pile elsewhere black. Genitalia brownish. Pile of venter whitish.

Female.—The single female is teneral and does not exhibit the contrasting colors of the males. The face and front are mostly reddish in the specimen (an abnormal coloration), the face below and the vertex of about equal width, the front slightly widening below. There are black hairs on the apical third of the scutellum, the sides of the mesonotum and the pleura. The broad sides of the second abdominal segment bear black hair; the whitish pilose band on the fourth segment is in the form of two transverse triangles which narrow inwardly, while the pale pile on the fifth segment is not interrupted in the middle. The pale pile reaches the lateral margins only on the third segment.

HOLOTYPE.—Male, Du River, Camp No. 3, Liberia. Allotype.—Female, Gbanga, Liberia, September, 1926. Paratypes.—Male, Lenga Town, Liberia, August 15, 1926 and male, Eden, Cameroons, (J. A. Reis). The first three specimens were collected by Dr. J. Bequaert.

Microdon tenuifrons, new species

Very similar to *liberiensis* but the thorax is wholly black pilose, there are small spines on the scutellum, the wings are brown and the color darker, more steel-blue. Length, 9 mm.

Male.—Front at lower third half as wide as at vertex, the anterior occllus situated at the middle of the front, the triangle with the sides about equal; face slightly narrowing below, gently convex, most prominent above, yellowish-white pilose, with brassy tinge, above and below with a few black hairs. Front and upper half of the occiput black-haired, the occiput below with pale yellowish pile. Antennæ as in liberiensis. Head black, the face bluish green.

Thorax steel-blue, the humeri and pleura brownish; hair wholly black, moderately long. Scutellum with a fairly deep apical emargination and on the angular corners with small spines. On the sternopleura above and the base of the scutellum there are yellow hairs.

Legs blackish brown, the basal half or more of the tibiæ reddish yellow; hair black, abundant on the tibiæ, shining yellow on the basal half of the tibiæ and the posterior surface of the anterior four. Posterior basitarsi not swollen.

Abdomen reddish brown, on the third and fourth segments mostly metallic bluish in some lights. The pile is black, the apical fourth of third segment rather golden pilose on the lateral third, the fourth segment with a very large, subtriangular area

clothed with golden pile on either side of the apical half. Genitalia brownish. Venter black-haired. Second segment above more or less luteous towards the middle.

HOLOTYPE.—Male, Du River, Camp No. 3, Liberia, (J. Bequaert.)

Microdon appendiculata, new species

Blackish, the abdomen either dull reddish or wholly black; antennæ elongate; bend of fourth and fifth veins with appendage. Belongs to the group in which the thorax and abdomen are rather narrow and in which there is only closely appressed pile on the body and appendages. Length, 8 to 10 mm.

Male.—Front wide, at the lower fourth four-fifths as wide as at vertex; its sides gently concave above, the frontal depression gently arched forwards; ocellar triangle of moderate size, lying but little in front of the posterior corners of the eyes. Face slightly widening below, in profile gently convex, strongly so below. Pile of lower half of face and occiput, silvery white, elsewhere on the head brassy yellow. Antennæ black, the first segment more or less reddish on basal half; elongate, two-ninths longer than the head, the first segment scarcely as long as the third, slender, above with yellow, below with black appressed hair, the second segment with at most two or three pale hairs, the rest black; third segment with parallel sides on basal half, considerably widened apically, the apex obtusely rounded below; arista luteous, about half as long as third segment.

Thorax black, coarsely granulate dorsally, with strongly appressed golden pile which becomes almost whitish on the lower part of the pleura, the scutellum similarly clothed; its posterior border evenly convex.

Legs reddish brown, the posterior pair black; wholly clothed with very short, appressed white hair; posterior tibiæ strongly swollen on apical third, the first segment of their tarsi strongly swollen, the following segment moderately swollen.

Wings grayish, brownish on apical half in front of the fourth vein; apical section of fourth and fifth veins recurrent, somewhat bisinuate, with a short appendage at the posterior bend; anterior crossvein situated at basal fourth of discal cell. Squamæ white, with very short white fringe; halteres yellow.

Abdomen dull reddish, the first segment brown, the disc of the fourth and fifth segments more or less ferruginous. Pile rusty brown, the narrow apex of the second segment, the sublateral depressions, broad sides of the abdomen, a broad, widely interrupted band on the third segment, the apex of the fifth segment. extending broadly forward on the combined fourth and fifth segments, white pilose, a transverse band of white pile extending over the middle of the genitalia, which are otherwise black-haired.

Female.—Front with parallel sides above, thence widening to below the antennæ; pile of head whitish, yellowish on the front and upper part of the occiput; no frontal depression; third antennal segment conspicuously wider apically; pile of thorax pale brassy yellow, on the mesonotum black except on the broad anterior and lateral borders, but with scattered yellow hairs on the disc; pile on basal half of scutellum largely black. Legs more brownish red. Apical two abdominal segments brownish; fourth segment with pale pile as on the combined fourth and fifth of the male, the fifth with lateral triangles resting on the base and extending to the apical corners and a rectangular spot on the apical half in the middle, white pilose.

In the black female the pile of the abdomen is colored as in the male, being only slightly paler on the head but there is black pile on the disc of the thorax and scutel-

lum; legs brown as in male; abdomen black, the second segment somewhat reddish laterally.

HOLOTYPE.—Male, Kakatown, Liberia, August 20, 1926. Allotype.—Female, Gbanga, Liberia, 1926. Paratype.—Female, Kakatown, August 20, 1926. All collected by Dr. J. Bequaert. The paratype is the dark female.

The variation in color is not unusual in this group but the difference in the structure of the third antennal segment may indicate specific differences, although it may be an abnormal condition.

Microdon inappendiculata, new species

Structurally very similar to appendiculate but with the third antennal segment much shorter, no appendage at bend of fourth and fifth veins and wholly black in color in male. Length, 8.5 mm.

Male.—Front very much narrower than face, at anterior third about two-thirds as wide as at posterior angles of the eyes, the posterior ocelli situated only slightly in front of posterior angles of eyes; face widest below, almost vertical on upper three-fifths, convex below. Pile of head whitish with slight brassy tinge, the vertex and ocellar triangle black-haired. Antennæ long, blackish, the first segment as long as the two following, the third slightly more than three-fifths as long as the first, with almost parallel sides, slightly convex below, the apex obtusely rounded; second elongate; basal two segments with short black hair; arista two-thirds as long as third segment.

Thorax coarsely granular, the pile with scarcely any yellow tinge, whitish; a broad band on the mesonotum behind the suture and a transverse median spot immediately in front of the suture, black-haired.

Legs black, white-haired, the femora and apical tarsal segments with black hair; tarsi reddish, darker basally, the basal two segments of the posterior pair blackish; basal segment of posterior tarsi rather strongly swollen, the second segment moderately enlarged.

Wings cinereous hyaline, blackish gray on apical half in front, the veins clouded with gray. Apical and discal crossveins recurrent, without appendage behind. Squamæ and halteres white, the former with very short fringe.

Abdomen black, the pile arranged as in *appendiculata*, black and white. Second segment widest, with almost parallel sides, the sublateral depressions rather deep. Genitalia reddish, black-haired.

HOLOTYPE.—Male, Kakatown, Liberia, August 20, 1926, (J. Bequaert).

This species is very similar to the American forms belonging to the subgenus *Omegasyrphus* Lynch-Arribalzaga but the straight sides of the second abdominal segment distinguish it from that group. It seems to form definite connection between the group of which appendiculata, new species, is a representative and *Omegasyrphus*.

Graptomyza breviscutum, new species

Related to triangulifera Bigot but with longer antennæ and the scutellum not one-third as long as wide. Length, 8.5 mm.

Male.—Face and cheeks yellow, a very broad median vitta, a broad vitta separating the face and cheeks and the narrow oval margin, brown; occiput and front black, the front with a subtriangular yellow spot on either orbit above the middle and another below, confluent with the yellow color of the face. Pile yellowish, on the lower part of the front and the median facial vitta, black. Antennæ brown, longer than the face; arista brown, luteous basally, short plumose. Eyes sparsely pilose. Face not nearly as wide as either eye, in profile gently produced, the low tubercle conspicuous, the antennal base prominent.

Thorax black, the dorsum with metallic blue sheen; humeri, a spot above the front coxæ, a triangle extending inward along the suture and continued downwards along the anterior border of the mesopleura, the upper edge of the sternopleura, lateral margins narrowly above the wings, posterior calli, a broad prescutellar fascia and the apical two-thirds of the scutellum, yellow. Pile yellowish; a large patch of short black hair on either side behind the suture, the posterior fourth with scattered long black hair; bristles black. Base of scutellum black, the depression small and very deep, appearing as a distinct hole; scutellar hair yellow, the border with four or six black bristles.

Coxæ and anterior femora reddish brown, the femora becoming yellow at the apex; middle and hind femora black, the apex yellow, the base of the hind pair broadly yellow; pile of femora black, yellowish on the base of the posterior pair and lower edge of front pair; tibiæ yellow, yellow pilose, the posterior pair black except on the broad base, black pilose. Tarsi yellowish, the posterior pair with the first segment black-haired above; first segment of the middle tarsi greatly broadened, widest on basal half.

Wings cinereous hyaline; stigma pale luteous; a short brown band covering the base of the stigmal cell and extending across the marginal cell; a broad band or cloud extending backward from the apical half of the stigmal cell as far as the middle of the discal cell, extended apically to join a narrow band extending over the crossveins and across the submarginal cell, brown. Squamæ grayish yellow, the border yellow on lower lobe, brown on upper lobe, the fringe yellow; halteres reddish yellow.

Abdomen shining black, yellow pilose; lateral margins of first and second segments, a broad vitta on either side of the second and third segments extending from the base of the second to the middle of the third and the posterior border of the second segment between pale vittæ, reddish yellow, the apical fascia interrupted, the apex of the third segment more or less reddish in the middle. Fourth segment with erect black pile in addition to the pale hairs, the second and third segments each with a patch of black pile on either side of the median line. Venter yellowish with brown median vitta. Genitalia blackish.

HOLOTYPE.—Male, Lesse, Belgian Congo, July 21, 1924, at flowers of *Bidens pilosa*, (J. Bequaert).

Baccha inversa, new species

Metallic blue-black; wings broad, blackish brown, posterior border narrowly gray on apical third. Length, about 10 mm.

FEMALE.—Face, occiput and vertex steel-blue; sides and upper third of face and lower three-fourths of occiput grayish pollinose and white pilose; occipital cilia on upper fourth brown; frontal hair, short, black, a few white hairs across the middle; a narrow, narrowly interrupted band of grayish pollen across the middle of the front.

Front moderately wide above, gradually widening from near the vertex to the antennæ, the supra-antennal swelling large, prominent, violaceous, the upper half of the front swollen and prominent, the ocelli situated far from the vertex. Anterior oral margin as prominent as antennal base, the tubercle large and prominent; lower edge of mouth strongly oblique on anterior four-fifths; antennæ reddish brown, the base of the third segment narrowly reddish yellow on lower half, the segment one-half longer than wide, sharply rounded above; arista yellow on basal two-fifths.

Mesonotum and scutellum rather dull black, thickly covered with fine punctures, the hair very short, black, a broad fascia of white hair before the scutellum. Scutellar fringe extremely short, white. Pleura bluish, white pilose.

Legs black; posterior tarsi reddish, the tips of the segments narrowly pale brown; apical segment of anterior four tarsi more or less reddish. Hair of legs extremely short, blackish, the middle femora with some long hair behind.

Alula very large, about one-third hyaline. Squamæ with broad white border and very short white fringe. Halteres whitish yellow.

Abdomen shining bluish black; third and fourth segments with a broad median and sublateral bronzed vitta, the lateral vitta produced broadly to the lateral margin posteriorly on each segment, those on the third segment tapering anteriorly. Hair black, on the apex of the second segment and the bluish parts of the third and following segments, white, the lateral margins, however, wholly black-haired. The abdomen is moderately pedunculate, the second and third segments long, the second slightly longer than the third.

Holotype.—Female, Lesse, Congo, July 21, 1914, (J. Bequaert).

Baccha nitidithorax, new species

Black, the antennæ and legs in part reddish; wings pale brownish, hyaline on basal third. Length, 9 mm.

Male.—Face, cheeks and occiput steel-blue, grayish pollinose; white pilose; upper third of occiput, frontal and vertical triangles, blue-black; tacial tubercle bare apically. Eyes touching for a distance equal to two-thirds the length of the frontal triangle, which is gently swollen on the lower two-thirds and bears a small gray pollinose spot above; occilar triangle small, occupying less than the anterior half of the vertical triangle. Anterior oral margin less prominent than the antennal base, the tubercle large and prominent; lower edge of mouth strongly oblique, slightly convex in profile. Antennæ brownish red, the third segment short oval.

Mesonotum and a fascia on the pleura beneath the wings shining black, the mesonotum somewhat bronzed, scarcely dulled on the disc; pile brown, rather short; on the pleura and scutellum yellowish. Pleura grayish pollinose; sides of mesonotum in front of the suture æneous: ventral scutellar fringe cinereous.

Legs black; apices of the femora and of the anterior four tibiæ, basal half of anterior four tibiæ, basal fourth of the posterior pair and the first segment of all the tarsi, reddish yellow, the tarsi pale yellowish-brown. Hair black; on the anterior four tibiæ and the first segment of all the tarsi, yellow.

Wings pale brown, hyaline on basal fourth; stigma brownish luteous. Alula large. Squamæ and fringe brown; halteres pale yellow.

Abdomen shining metallic black, slightly bronzed, the apical fourth of the second, half of the third and a broad band across the middle of the fourth segment, opaque. Pile on the first segment, basal half of third and on large triangles on the base of the

fourth, white, elsewhere black; appressed on the dorsum. Genitalia small, blueblack. Second and third segments long, the second very narrow, the third hardly three-fourths as long as the second, the apical segments moderately widened.

HOLOTYPE.—Male, Lesse, Congo, July 21, 1914, (J. Bequaert).

This species is readily distinguished from bequaerti and liberia by much longer second and third abdominal segments, shining thorax, etc.

Baccha bequaerti, new species

Black, antennæ and legs in part reddish; wings pale brown, hyaline subbasally. Length, 8 mm.

Male.—Head steel-blue, the front bronzed, small spot in the upper angle gray pollinose. Pile black, on the lower two-thirds of the occiput, white; sides of face and occiput gray pollinose, the latter shining above; eyes touching for a distance equal to the length of the frontal triangle, the upper facets swollen; occilar triangle occupying the anterior half of the small vertical triangle, the hairs in a single row. Frontal triangle moderately swollen above the lunula. Face below slightly more prominent than at the antennal base, the tubercle large and prominent; lower edge of mouth oblique. Antennæ brown, reddish below, the third segment somewhat longer than wide, obtusely rounded apically.

Thorax æneous, the dorsum dulled and more blackish, the sides behind the suture black; pleura with a black fascia beneath the wings. Pile on median third of mesonotum, pleura and dorsum of scutellum, yellowish; on the pteropleura, upper, posterior border of mesopleura and the broad margin of the scutellum, black. Scutellar fringe yellowish.

Legs black, the apices of the femora, broad bases of the tibiæ and the apices of the anterior four tibiæ, reddish; basal tarsal segment reddish brown. Pile black; yellowish on the anterior tibiæ.

Wings pale brownish, the immediate base brown; the color becomes almost hyaline towards the basal sixth. Alulæ large. Squamæ and fringe brown. Halteres yellow.

Abdomen shining greenish-black, the apical two-thirds of the second and large, subtriangular spots on the apical half of the third and fourth segments, opaque. Pile wholly black, long on the sides basally, appressed dorsally. Genitalia small, shining black. Second abdominal segment four-fifths as long as the third. The abdomen is moderately slender, narrowest at the middle of the second segment.

HOLOTYPE.—Male, Eden, Cameroon, (J. A. Reis).

Looks very much like *B. liberia* but the shorter abdominal segment, shorter abdominal petiole and the brown squamæ at once distinguish it.

Baccha liberia, new species

Black, the antennæ and legs partly reddish, wings grayish, hyaline on basal fourth. Length, 11 mm.

Male.—Head steel-blue, the facial tubercle and frontal triangle black, the latter slightly bronzed; upper fourth of front, face, cheeks and occiput grayish pollinose. Pile black, yellow on the cheeks and lower half of occiput; occipital cilia brown on upper third, white below. Eyes touching for a distance almost equal to the length of

the frontal triangle; ocellar triangle situated at front of vertical triangle; lower twothirds of frontal triangle swollen; oral margin slightly more prominent than the antennal base, the tubercle long and prominent; lower edge of head oblique. Antennæ brown, the lower surface of the first two and broad base of the third segment, except above, reddish; the third segment oval, rounded apically; arista shorter than antenna, luteous on basal half.

Thorax rather bronzed, the dorsum dulled by brown pollen, the pleura gray pollinose except a fascia beneath the base of the wings. Pile of the dorsum, pteropleura and upper border of the mesopleura, blackish or brown, on the pleura and scutellum, yellowish, the latter with some black hairs apically, the ventral fringe yellowish.

Legs blackish; tips of femora, broad bases of the tibiæ, the middle pair almost wholly, and the basal tarsal segment, brownish yellow, the hair black.

Wings brownish gray, the basal fourth hyaline; the base of the wing before the humeral crossvein, and the stigma, luteous; alula large. Squamæ and fringe white; halteres pale yellow.

Abdomen shining blue-black, the apical half of the second and third segments opaque, the third more or less broadly shining in the middle posteriorly. First segment, sides of second on basal two-thirds and small lateral triangles on the third, long, whitish pilose, the basal third of the second segment and a small, submedian triangle on either side of the third, with shorter white pile. Pile elsewhere black, long basally on the sides, short and appressed dorsally beyond the middle of the second segment. Genitalia small, rather brownish. Abdomen rather strongly petiolate, the second segment scarcely longer than the third.

HOLOTYPE.—Male, Memel Town, Liberia, August 29, 1926, (J. Bequaert).

Rhingia trivittata, new species

Related to mecyana Speiser but the thorax bears three broad dark-brown vitte, the snout is brown above, etc. Length, including snout, 11 mm.

Male.—Face and cheeks yellowish, middle of face, upper surface and tip of snout, the occiput and front brown in ground color, pile yellowish on cheeks and occiput, occipital cilia and frontal pile black; frontal triangle and cheeks bare; sides of face, the cheeks and occiput, whitish-gray pollinose; frontal triangle with the border clothed with grayish-yellow pollen, the ocellar triangle gray. Proboscis blackish. Antennæ reddish, the third segment darker, sometimes brown, three-fourths as wide as long, rather pointed apically; arista shining brown or black.

Mesonotum with more than the median half brown in ground color, the sides and posterior border broadly reddish; a broad median and a slightly narrower vitta on either side with brown pollen, the pollen elsewhere on the thorax grayish red. Pile black on the dorsum, partly yellow in front of the suture and wholly so on the pleura. Scutellum shining reddish, the pile black, a narrow basal band and the long ventral fringe pale yellowish. Pleural incisures broadly reddish.

Legs reddish, the femora more or less brown basally, the apical four tarsal segments somewhat brown at the base. Hair black, the posterior surface of the anterior four femora with long pale hair on basal half or more, the posterior femora with pale hair on basal three-fourths of anterior and posterior surfaces.

Wings with yellowish brown or luteous tinge. Squamæ yellowish gray, with brown border and fringe; halteres reddish with brownish-tinged knob.

Abdomen reddish and shining black; basal segment reddish yellow, the posterior incisure shining black except in the middle; second segment reddish with the apical sixth or less black; third segment with a black band occupying the apical third, the band with small triangular excision at middle and sides; in front with the base very narrowly brown toward either side. Fourth segment black with indications of reddish spots on anterior corners. Abdominal pile black, yellowish on the lateral margin, on the basal half of the second and whole of the first segment. Genitalia brownish, with reddish tinge basally, the pile black.

HOLOTYPE.—Male, S. W. Mikeno, Belgian Congo, March, 1927. PARATYPE.—Male, Kiboti, Congo, March 28, 1927. Both specimens collected by Dr. J. Bequaert.

Lejops nasutus, new species

Related to *lineata* Linnæus but with a longer snout, more curved posterior tibiæ, etc. Length, including snout, 1.05 mm.

Male.—Head black, the face, cheeks, occiput and lower part of front thickly brownish-yellow pollinose with golden tinge; vertical triangle with yellowish-brown pollen in front of the ocelli, brownish on posterior half. Front strongly narrowed at anterior third where it is much narrower than the width of the second antennal segment; ocellar triangle much wider than long. Snout very long, horizontal, shining black on lower half, the line of demarkation between the upper and lower sections of the front also shining. Occipital cilia, frontal pile and hair on upper part of snout, black, elsewhere yellowish white. Antennæ black; third segment subrectangular, a little longer than wide; arista brownish red, longer than antenna.

Mesonotum grayish-brown pollinose, with a pair of widely separated, moderately broad, entire dull ochreous vittæ which are narrowly bordered with black; pleura brownish-gray pollinose. Median three-fifths of mesonotum with extremely short black hair, the sides and pleura pale-yellowish pilose. Scutellum black, moderately brown pollinose, white pilose, the hair very short except on the free border.

Legs black, chiefly yellowish pilose; tips of femora and bases of tibiæ, reddish, broad apices of the anterior four tibiæ and the basal three segments of their tarsi, yellow; third segment of posterior tarsi reddish, the preceding segment partly reddish. Anterior and middle femora with short black hair on anterior surface, the posterior tibiæ black-haired on basal half. Posterior femora moderately swollen, their tibiæ rather strongly arcuate, produced on the inner apex as a broad, yellowish lobe, the basal segment of their tarsi swollen. Anterior tarsi with a small black spot near the middle below.

Wings strongly tinged with brownish yellow. Squamæ and halteres yellow.

Abdomen black, with two pairs of yellow triangles, mostly opaque. First segment grayish pollinose; second with a pair of large yellowish triangles extending from the base to the apical fifth, their inner ends sharply rounded, broadly separated from each other; the apical fifth of the segment shining black. Third segment with a pair of large, transverse, broadly separated semioval spots on the basal half, the ochreous pollen covering them acute inwardly, the apical fourth of the segment shining black. Fourth segment with a pair of brownish-ochreous pollinose spots which are obliquely placed, their outer ends rounded, their sides almost parallel, the inner ends resting wholly on the base of the segment and broadly separated from each other, the posterior half of the segment and the broad lateral margins shining black. Genitalia

shining black. Pile pale yellowish, on the incomplete, narrow apex of the second segment, on the apical half of the third except laterally and the middle of the fourth, produced broadly towards the sides on the posterior half, black. Venter thinly gray pollinose, pale pilose.

Holotype.—Male, Masisi, Belgian Congo, December 30, 1914, (J. Bequaert).

Diopsidæ

Diopsis dimidiata, new species

Related to *ichneumonea* Linné, but with the basal third of the abdomen black and the front with an oval tubercle in front of the ocelli, radiating fine ridges on either side and with granular median area. Length, 6 to 6.5 mm.

Male.—Head shining rusty reddish, the eye-stalks posteriorly and apically and the V separating the front and face, blackish. Median bristle on eye-stalks very small arising from a tubercle, the ocular bristle small. Hair sparse. Oral spines small, oblique. The lateral ridges on the front radiate from a point almost opposite the ocelli to the lunular groove, the inner lower ones being more conspicuous. Palpi and antennæ reddish.

Thorax moderately gray pollinose, the sides of the collar and dorsum of the scutellum except the base and a narrow median vitta, shining black, the scutellum very finely granulate. Thoracal and scutellar spines reddish, with the tips broadly black. Hair inconspicuous.

Legs, including the coxæ, reddish yellow; femora with the subapical half ferruginous, sometimes paler below, somewhat variable in extent and intensity of the color; anterior and posterior tibiæ ferruginous or brownish; tarsi becoming brown apically, the anterior pair brown except at the base; middle tibiæ often with ferruginous tinge. Anterior femora strongly swollen.

Wings grayish hyaline, with a narrow subapical spot extending from the costa almost to the fourth vein, the disc of the wing rarely a little darkened.

Abdomen shining black, the fourth segment with a median gray pollinose vitta, the subapical half of the second segment (actually almost the apical half of the second and basal two-thirds of the third, the segments fused) deep reddish, the broad middle of the third and fourth segments sometimes reddish or with castaneous reddish tinge. Abdomen moderately clubbed.

Female.—Abdomen wider, with broader reddish bands.

HOLOTYPE male, ALLOTYPE female, Pretoria, S. Africa, April 26, 1919. PARATYPES: six males one female, same data; male, Elliot, May 11, 1924, and male, East London, April 23, 1922. All collected by Mr. H. K. Munro. Types in Munro Collection; paratypes in American Museum of Natural History.

This species closely resembles the form described by Eggers as D. $ichneumonea\ ichneumonella$, but that insect has the front polished.

Diopsis munroi, new species

Black, the wings brown, the basal fourth hyaline, three fasciæ whitish. Length, $7~\mathrm{mm}$.

Male and Female.—Head brownish black, the sides gray pollinose, hair not abundant, rather short; front with the median third smooth, the sides with three or four low, transverse ridges. Eye-stalks short, without bristles; antennæ brown.

Anterior third of mesonotum, the pleura and scutellum wholly, rather thinly gray pollinose; hair inconspicuous. Scutellar spines brown, sparsely pale-haired, one-half longer than scutellum. Spines of thorax brown.

Legs castaneous, the tarsi reddish.

Basal fourth of wings hyaline, the apical three-fourths brown, pale apically and posteriorly. A broadly interrupted, slightly curved white fascia lies a little before the middle of the wing; a second, outwardly bowed white fascia begins in the apex of the marginal cell and extends to the posterior border of the wing behind the tip of the second vein, being narrowly interrupted at the third vein; narrowly separated from this fascia is a less distinct and more irregular one, beyond which the color is paler.

Abdomen shining black, the sides of the second and third segments with small triangular gray pollinose spots.

HOLOTYPE male, ALLOTYPE female, Fairy Glen, Pretoria, March 29, 1913. PARATYPES.—Male, same data; three females, Premier Mine, May 11, 1914, all collected by H. K. Munro. Types in Munro Collection; paratypes in American Museum of Natural History.

Tachinidæ

BEQUAERTIANA, new genus

Readily distinguished from described genera by the absence of the apical half of the ultimate section of the fourth vein, absence of the postscutellum, very long pubescent arista and the short antennæ; belongs to the Moriniinæ.

Cheeks slightly over three-fifths as wide as eye-height; face in profile rather strongly convex-receding to lower edge of eyes, thence vertical to oral margin the soft part of the cheeks very wide; parafacials with short, bristly hairs on whole length; front with parallel sides, three-fourths as wide as either eye, (from frontal view onesixth wider than eye); parafrontals with row of ten to twelve rather weak orbitals, the upper three or four pairs divergent; twelve pairs of frontals, none below the base of the antennæ; ocellars absent, the ocellar triangle with longish hair; frontal vitta slightly narrower than either parafrontal. Antennæ short, lying in the short-oval facial depression which extends two-thirds the distance to the oral margin, the third segment not larger than the second; arista dorsal, very long pubescent; three pairs of strong bristly hairs and several weaker ones along the sides of the narrowed clypeal regions. Mouthparts small, the palpi, if present, wholly concealed. Hair of thorax moderately short, not abundant, the acrostical hairs in two rows; dorsocentrals 1-3; no intra-alars; one supra-alar; presutural strong; no posthumeral or sublaterals; two notopleurals and one or two humerals; two bristles on the posterior calli; scutellum with two pairs of bristles, the hair rather long; two sternopleurals and several scattered hairs; two to four hypopleural bristles. Postscutellum not convex. Legs almost without bristles, the anterior femora with a row of bristly hairs on the apical two-thirds of the posteroventral surface, the posterior femora with one or two weak bristles on the posteroventral surface near the middle. Claws and pulvilli small. First vein of wings setose on whole length; fourth vein straight, not nearly reaching the wing margin; posterior crossvein straight, transverse; anterior crossvein beyond middle of discal cell; no bristles on third vein. Squamæ long and narrow, rounded apically; no infrasquamal setulæ. Abdomen twice as long as wide, its sides almost

parallel beyond the first segment, obtuse apically, flattened and very much wider than deep, without bristles.

Genotype.—Bequaertiana argyriventris, new species.

Bequaertiana argyriventris, new species

Brownish yellow, the head and legs partly black; abdomen silvery in some views. Length, $6.5\,$ mm.

Male.—Occiput below the neck and the facial depression brownish yellow, the face and cheeks brown, brownish-gray pollinose. Occiput and front black, the former and the outer half of the parafrontals with rather thin brownish-gray pollen; frontal vitta blackish. Antennæ yellow, the arista black.

Mesonotum rather silvery, with three broad, almost bare vittæ; pleura thinly whitish pollinose.

Femora with brownish tinge apically, the tibiæ and tarsi black.

Wings gray. Squamæ grayish yellow, with narrow brownish border. Halteres broken off.

Abdomen with the posterior third to one-half of the segments brownish; from most views silvery beyond the first segment. Hair black. Venter yellow, the fifth sternite with a brown band. Genitalia not visible from dorsal view, rather small.

HOLOTYPE.—Male, Du River, Camp No. 3, Liberia, (J. Bequaert).