

SOME NEW EXOTIC PHORIDÆ.

BY CHARLES T. BRUES.

(Plate VIII.)

The following descriptions of new species of the Dipterous family Phoridae are based upon a very interesting though small collection recently accumulated by the Hungarian National Museum.

Through the courtesy of Dr. K. KERTÉSZ in charge of the Diptera in that institution, they were sent to me for identification and description of the new species. The specimens were collected in several widely separated localities, some in South America, others in German East Africa, one in India, and the remainder in New Guinea and Australia.

Without doubt the most interesting ones are the three wingless species belonging to the genera *Puliciphora*, *Wandolleckia* and *Chonocephalus* from East Africa. That such forms belonging to these apterous genera recognized from widely separated continents or from the far extremity of even the same continent should occur here indicates that a great wealth of species of these remarkable creatures must still remain to be discovered, probably in all parts of the World.

The types of the new species have been deposited in the Hungarian National Museum.

SOUTH AMERICAN SPECIES.

Phora paraguayana n. sp.

(Plate VIII. fig. 9.)

Female. Length 2.75—3.5 mm. Testaceous, abdomen above black except most of the first segment and the base of the second. Antennæ, front and proboscis more honey-yellow, tips of hind femora blackened and the legs apically blackened, darker from the black pubescence. Head of moderate size; the front shining, with a few punctures along the sides; a very little wider than long, without ocellar tubercle or frontal groove, but with the upper margin finely reflexed. Bristles strong; lower pair reclinate; next row of four a little curved, its lateral

bristles closer to the median ones than to the eye-margin; two upper rows of four equidistant ones each. Space about ocelli blackened. Antennæ small, rounded, arista nearly bare, black except at base. Palpi small, bristly only at the tips, the bristles rather weak. Proboscis stout, porrect and very heavily chitinized, but slender and not enlarged at the tip. Cheeks bare except for two strong macrochætæ. Postocular cilia strong except near the ocelli. Dorsum of thorax sub-shining, yellowish-brown anteriorly, shading to piceous behind and on the scutellum which is about four times as wide as long. A single pair of dorsocentral bristles and two marginal scutellar bristles. Abdomen opaque, without bristles or hairs. Pleuræ pale yellow, without spots and entirely bare. Legs moderately slender, front tibiæ with a series of four nearly equidistant small bristles along the outer edge, middle ones with a pair at the basal third on the outer side and a single one just before the tip; posterior pair with a series of five or six bristles on the posterior edge; posterior metatarsus two-thirds as long as the tibia and bristly below, not broadened. Wings hyaline, with a slight yellowish tinge, veins testaceous except the costal which is piceous. Costa extending far beyond the middle of the wing, its bristles extremely fine and short but thickly placed. Mediastinal vein entirely wanting, and humeral cross-vein very weak. First vein ending two-thirds of the way from the humeral cross-vein to the tip of the third vein, the furcation of the third vein very oblique, the branches nearly parallel and meeting the costa very close together; fourth vein weakly and evenly curved, fifth almost straight, ending nearer to the wing tip than the fourth; sixth nearly straight; seventh weak but distinct, much curved and close to the wing margin. Halteres pale clear yellow.

Two females, Paraguay: Asuncion (VEZÉNYI 1905, and ANISITS 1904, IX—X.).

On account of its elongated proboscis, the series of four bristles on the fore tibiæ, and the similar series of six on the hind tibiæ, this species comes in the group *Dorniphora* DAHL, which also includes *Ph. papuana* BRUES, *Ph. incisuralis* LOEW, *Ph. Dohrnii* DAHL, *Ph. divaricata* ALDRICH and *Ph. perplexa* BRUES. From the first it may be distinguished by the series of five bristles on the hind tibiæ, from the second by the fact that these bristles are placed along the outer edge. In *Ph. incisuralis* they are on the side near the inner edge; in the other three species the tibiæ are bare,

Aphiochæta meridionalis n. sp.

(Plate VIII. fig. 10.)

Female. Length 2.2 m. Luteous yellow, the legs very pale; abdomen honey-yellow, with a narrow black band at the apex of each segment, that on the second segment broadest and widened a little on the sides. Front as high as broad, distinctly narrower below than above, yellow, the ocellar tubercle black, median frontal groove very distinct; frontal bristles stout, four proclinate bristles, the median pair very small and close together, the larger pair equidistant from one another and the lower reclinate bristle on each side; the upper reclinate bristle of this lower row nearly above the lower one; next row of bristles slightly curved, its members equidistant; ocellar row straight. Antennæ small, oval, luteous; arista finely pubescent. Palpi luteous, with strong bristles below. Proboscis fleshy and very short. Cheeks each with a closely placed row of about ten slender macrochætæ directed downwards, the posterior two longer than the others. Postocular cilia not enlarged below. Thoracic dorsum yellow, rather shining, with one pair of dorso-central macrochætæ. Scutellum with only two bristles, abdomen yellow, the first six segments with black posterior margins, the bands of the second and third segments widened on the sides. Seventh segment black. The sides of the second segment with a bunch of black hairs. Legs long and slender, all the coxæ with a few black bristles below. Hind femora scarcely thickened, their tibiæ with a black line above and a series of rather long but very weak setulæ. Wings hyaline, tinged with yellow, especially in front; costal vein reaching well beyond the middle of the wing, its bristles short, delicate and thickly placed. First vein ending at three-fifths of the distance from the humeral cross-vein to the tip of the costa. Furcation of the third vein rather sharp, the cell thus formed small, the last section of the costa as long as the second vein. Fourth vein evenly curved and recurved at the extreme tip. Fifth vein rather sharply bent at the middle. Sixth bent back beyond the middle, so that the two converge and then rapidly diverge apically. Seventh vein nearly straight and not conforming with the anal edge of the wing. Halteres pale yellow.

One specimen. Paraguay: Asuncion. (VEZÉNYI 1905).

This form is related to the West Indian *Aphiochæta obscura* BRUES, which it resembles in general facies. It is quite different however, and may be distinguished by the longer costal vein that reaches considerably beyond the middle of the wing, the almost hyaline wings, pale banded abdomen, and closely placed costal bristles. The anal vein

is also much farther from the edge of the wing, and the front is pale yellow.

Aphiochæta pauxilla n. sp.

(Plate VIII. fig. 2.)

Male. Length 1 mm. Black, including the antennæ and halteres. Palpi pale yellow; legs dusky testaceous, hind pair more or less piceous. Front about quadrate, sub-shining and faintly grayish pollinose; four well-developed proclinate bristles, the two on each side close together but well separated from the pairs on the opposite side, the two lateral reclinate bristles of the lower row both very near to the lower corner of the front; both middle row and ocellar row straight and regular; ocellar tubercle well-developed and frontal groove distinctly impressed. Antennæ small, black, more distinctly ovate than usual, with an almost bare arista. Palpi rather large, with strong bristles. Postocular cilia stout, the cheeks below with a row of about five downwardly directed bristles. Dorsum of thorax subshining, with a single pair of dorsocentral macrochætæ. Scutellum twice as wide as long, with only two bristles. Abdomen small, black, the segments of equal length. Hypopygium rounded, the projecting lamella small. Legs short and robust, all the joints of the anterior tarsi enlarged; tarsi of other legs slender, the hind metatarsi not over one-half the length of the tibia. Posterior tibiæ with a row of fine setulæ on the hind margin toward the inner side where they are not very readily seen. Wings clear hyaline, the costal vein reaching to two-fifths the length of the wing, its cilia long and rather sparsely placed, there being only three between the tip of the first vein and the end of the costa, a distance equal to one-half the space between the humeral cross-vein and the tip of the first. First and third veins running close together and curving gradually to meet the costa, furcation of third very close to the tip; second vein delicate and very weakly developed. Fourth vein slightly but evenly curved; others more nearly straight than usual. Halteres entirely black.

(One male. Argentine Republic: Lules, October 1905 (VEZÉNYI).)

This is related to both *A. pygmaea* ZETT. and *A. pusilla* MEIG. From the first it may be separated by the black halteres, longer costal vein and less approximated first and third longitudinal veins. From *pusilla* it differs by the less approximated first and third veins and more widely separated costal bristles, the distinctly flattened anterior tarsi do not occur in either of the two. It is undoubtedly a close relative of these two species of holartic distribution. I think can be readily distinguished by these characters aside from the wide geographical separation.

INDO-AUSTRALIAN SPECIES.

Phora nudicosta n. sp.

(Plate VIII. fig. 6.)

Male. Length 1.3 mm. Thorax yellowish brown, head fuscous, pleura and legs pale testaceous, abdomen black with a testaceous band at the base which includes the entire first segment. A slender species with nonthickened legs and the habitus of *Aphiochæta*. Front one-half wider than high, lower row of frontal bristles consisting of four strong equidistant bristles, of which the lateral ones are close to the eye-margin. In front of these is an approximated much smaller pair of median reclinate bristles. Middle row placed rather high up; ocellar row as usual. Ocelli not placed on a tubercle; no trace of median frontal groove. Antennæ small, oval, yellowish fuscous, with an almost bare arista. Palpi yellow, slender, with stout bristles below, proboscis short and fleshy. Cheeks without any stout macrochætæ. Thoracic dorsum sub-shining, its hairy vestiture stronger than usual; one pair of dorsocentral macrochætæ and only two marginal scutellar bristles. Scutellum about two times as wide as long. Abdomen black, except the first segment which is testaceous; second and sixth segments elongate. Hypopygium with the large ventral lobe black and all the appendages testaceous. Front tibiæ with an external bristle at the basal third; middle ones with a pair near the base and hind ones with a single bristle at the basal third. The four posterior tibiæ have each but a single spur. Wings hyaline, the veins fuscous. Costal vein extending only about two-fifths the length of the wing; entirely bare, without even any fine hairs and considerably thicker toward the tip. Third vein almost as thick as the costa, suddenly curved forward at the tip, furcate at a sharp angle very near the tip. First vein meeting the costa very obliquely just before the tip of the second. Fourth vein nearly straight basally, but broadly recurved at its apical fourth. Fifth and sixth nearly straight, seventh obsolete. Halteres pale, with a fuscous capitulum.

One male. India: Matheran; 800 metres, July 8, 1902 (Biró).

The present species could not be confused with any other. The peculiar configuration of the thick veins, bare costa, recurved fourth vein and slender legs with only single spurs on the four posterior tibiæ will serve to make it readily recognizable.

Aphiochæta Biró n. sp.

(Plate VIII. fig. 4.)

Female. Length 1.25—1.5 mm. Dark brownish varied with black; legs testaceous. The thoracic dorsum is always brown, but the front varies from brown to black and the abdomen is principally brown. Antennæ light brown; palpi pale yellow. Front about as wide as high, grayish pollinose, the ocellar tubercle very distinct and the median impressed line deep. Four proclinate bristles close together; lower angles of the front each with a pair of reclinate bristles inserted rather far apart. Middle row curved strongly downward medially, the inner bristles widely separated, as far from the median line as from the eye-margin. Antennæ small, the arista thickly pubescent. Palpi small, weakly bristly below, the apical bristles stronger. Proboscis very short and fleshy. Cheeks with two large downwardly directed macrochætæ and a row of smaller ones in front. Thoracic dorsum light brown or fuscous, sub-shining, with a single pair of unusually weak dorsocentral macrochætæ and four equally strong marginal scutellar bristles. The scutellum is sub-triangular, less than two times as wide as long. Abdomen black or piceous, the posterior margins of the segments more or less distinctly margined with whitish yellow. Genitalia pale. Legs short, but not particularly stout. Spur of middle tibia short, less than one-half the length of the basal joint of the tarsus. Posterior femora delicately but distinctly ciliated below with fine yellow hairs, their tibiæ bare, without any trace of setulæ, but with a fine black line along their hind edge; with a single short, but stout spur. Wings hyaline, the veins dark fuscous; costal vein reaching considerably beyond the middle of the wing, its cilia exceedingly short and very thickly placed. Third vein forked far from the tip, the second vein meeting the costa two-thirds the way from the tip of the first vein to the tip of the costa. First vein joining the costa three-fourths as far from the humeral cross-vein as from the tip of the costa. Fourth vein curved at base and straight at apex; fifth and sixth slightly bisinuate; seventh nearly straight, distinct. Halteres pale.

Three female specimens, New Guinea (Biró). Two from Simbang, Huon Gulf 1899 and the other from Seleu, Berlinhafen 1896.

This species is a close relative of *A. limbata* BRUES from India, but the wings are hyaline and the costal vein is longer, reaching considerably beyond the middle of the wing. Otherwise the two are very much alike.

Aphiochæta cilipes n. sp.

Female. Length 2.75 mm. Brownish-yellow, head black and abdomen in part black; legs yellowish testaceous, the hind femora and also the tibiæ tipped with black. Wings pale yellowish. Front slightly but distinctly wider than high, brownish near the lower margin. Frontal chætotaxy rather peculiar; the ocellar row straight as usual, middle row very strongly bowed downward. Aside from these there are only four more reclinate bristles placed in a pair on each side near the lower angle, one above the other. The four proclinate bristles large and well-developed especially the upper pair which are widely separated and higher up than usual. Antennæ small, oval, testaceous, the arista very weakly pubescent. Palpi large, strongly bristly. Proboscis very short, fleshy. Cheeks each with a pair of very stout downwardly directed bristles and a smaller series of four or five in front of these. Post-ocular cilia strong. Dorsum of thorax strongly arched with a single pair of dorsocentral bristles and only two marginal scutellar ones. Abdomen mostly black, irregularly marked with yellow. First to fourth segments each with a narrow yellow posterior border, the second yellow on the sides and the fourth on the middle. Second segment with a bunch of black bristles on each side. Legs long and very stout, the posterior femora much thickened, less than four times as long as broad and ciliated below on the apical half with a series of long curved black bristly hairs. Four posterior tibiæ strongly setulose, the bristles of the middle pair twice as long as the width of the tibia and those of the hind pairs which are arranged in two series fully as long as the width of the tibia. Middle tibia with one very long spur and hind ones each with one long and three short ones. Wings long, the costal vein reaching distinctly beyond the middle, its cilia of moderate length. First vein attaining the costa one half the way from the humeral cross-vein to the tip. Furcation of third vein forming an angle of about forty-five degrees, the cell thus formed of moderate size; fourth vein curved at the base and straight at the apex; fifth, sixth and seventh nearly straight, all of them strong. Halteres pale.

One female from Sattelberg, Huon Gulf, New Guinea, May 1899 (BIRÓ).

This species is related to *A. nigriceps* LOEW of North America and *A. melanocephala* v. ROSER of Europe. From the first it is distinguishable by the strongly bristly tibiæ the middle pair being distinctly setulose, by the shorter costal cilia, and the absence of a second pair of scutellar bristles. It differs from *melanocephala* which has also simi-

larly bristly tibiæ by the very short costal cilia which are very long in the European form, and by the longer costal vein which extends distinctly beyond the middle of the wing.

Aphiochæta fumipennis n. sp.

(Plate VIII, fig. 8.)

Female. Length 2—2.5 mm. Black, antennæ and palpi brownish-yellow; four anterior trochanters and tibiæ, and all tarsi brown. Wings strongly infuscated, dark brown. Front very shining, with a very few fine scattered hairs, distinctly higher than wide. Ocellar tubercle and median frontal groove present, well-defined. Four proclinate bristles, the lower ones much weaker than the upper pair, a pair of reclinate ones at each corner; middle row curving strongly downward medially; ocellar row straight. Antennæ small, oval, with a strongly pubescent arista. Palpi small, their bristles stout only at the tips. Postocular cilia stout, cheeks each with three downwardly curving macrochætæ. Thorax longer than usual, the mesonotum sub-shining and strongly hairy, with only one pair of dorsocentral macrochætæ. Scutellum twice as wide as long, with two marginal bristles. Abdomen slender, the second segment elongated; nearly as long as the third and fourth together. Genitalia pale. Legs stout, but not especially thickened, the posterior femora less than one-fourth as broad as long. Middle tibiæ microscopically setulose, hind ones more strongly so, the bristles about one-half as long as the width of the tibia. Middle tibiæ with a single long slender spur, hind ones with one long and one much shorter one. Wings very long and narrow, strongly infuscated, more especially so along the veins. Costal vein reaching distinctly beyond the middle of the wing; third vein near to the costa for its entire length. First vein meeting the costa closer to the humeral cross-vein than to the tip of the third. Cell formed by the furcation of the third vein, very small and short. Costal cilia very short and thickly placed; fourth vein slightly but evenly arcuate, faintly recurved at the tip. Fifth broadly bent at its middle; sixth slightly sinuate; seventh distinct and nearly straight. Halteres wholly black, except the basal articulation of the pedicel which is pale.

Two female specimens from Sattelberg, Huon Gulf, New Guinea, May 1899 (Biró).

At first glance this species might very readily be confounded with the European *Aphiochaeta minor* Zett. on account of its polished front, infuscated wings, short costal cilia and setulose hind tibiæ. It

may readily be known however, by the much longer costal vein which reaches well beyond the middle of the wing, the black halteres, pale antennæ and palpi and more strongly regularly arcuate fourth wing vein. It shows considerable affinity with *A. planifrons* BRUES another species from New Guinea, but may be distinguished by the dark wings, median frontal groove and much longer first longitudinal vein in the wings.

Aphiochæta manca n. sp.

(Plate VIII. fig. 5.)

Male. Length 1.25 mm. Slender, yellow, with pale testaceous legs, the hind femora strongly blackened at the tip. Abdomen with the third and fourth segments black. Knob of halteres piceous. Front yellow, a very little higher than wide, with a distinct black ocellar tubercle and distinct median impressed frontal line. Four well-developed proclinate bristles, the anterior pair much the smaller; lower angles of front with two closely approximated reclinate bristles, following row nearly straight, ocellar row normal. Cheeks each with one stout downwardly directed macrochæta. Palpi slender, moderately bristly. Antennæ rounded, the arista short stout and strongly pubescent. Dorsum of thorax elongate, with a single pair of dorsocentral macrochætæ and only two scutellar bristles. Abdomen bare, with a few fine bristles along the sides; none of the segments elongated. Legs long and slender; the spur of the middle tibia three-fourths the length of the first joint of the tarsus. Hind femora moderately thickened, not ciliated; hind tibiæ setulose, the length of the bristles over one-half the thickness of the tibia; one long and one short apical spur. Wings hyaline, with a distinct yellowish cast, the veins yellowish. Costal vein extending barely beyond the middle of the wing, its cilia very short and quite thickly placed; third vein close to the costa, not furcate at the tip although there is a slight thickening or darkening in the wing at the point where the second vein usually extends. First vein meeting the costa at a point distinctly nearer to the humeral cross-vein than to the tip of the third. Fourth vein very slightly curved; following nearly straight, the seventh distinct. Knob of halteres piceous, the base of the stalk yellowish.

One male from Singapore, January 26, 1902 (BIRÓ).

This is a most peculiar species which differs from all the other known species of *Aphiochæta* by the absence of the second vein in the wings. The third vein is not furcate at the tip, or at least so indistinctly so that there is scarcely any thickening of the wing membrane at this point. On this account it might perhaps be referred to

Pulicifora, but the habitus, spinose tibiæ with well developed spurs, as well as the form and chaetotaxy of the front are exactly as in certain typical species of *Aphiochaeta*.

In color and all characters exclusive the furcation of the third vein, it approaches the European *A. flava* FALLÉN.

Pulicifora matheranensis n. sp.

(Plate VIII. fig. 3.)

Male. Length nearly 1 mm. Piceous black, the legs, antennæ, and palpi brownish-yellow. Front about twice as wide as high, with an ocellar row of four bristles, a row of four along the anterior margin, which are porrect or slightly reclinate, and also a single one on each side about the middle near the eye-margin. Antennæ small, brown; the arista slightly pubescent. Palpi strongly clavate, bristly. Dorsum of thorax subopaque with one pair of dorsocentral macrochætæ and two scutellar bristles. Abdomen small, dull black, the genitalia but slightly projecting; second segment slightly elongated, nearly twice as long as the third which is much longer than the fourth. Legs short and rather stout, but the tibiæ are not at all setulose. Spur of middle tibiæ minute, that of the hind tibiæ short, but quite distinct. Wings hyaline, with a very weak brownish tinge. Costal vein just attaining the middle of the wing, its cilia closely placed, microscopically fine and short. First vein meeting the costa at a point equidistant from the humeral cross-vein and the tip of the costa. Light veins closely connected with the third vein. Fourth vein straight except at the base; fifth bent near the base, then parallel with the fourth to the tip; sixth curved back toward the tip; seventh distinct, nearly straight and close to the anal angle. Knob of halteres black, the stalk pale basally.

One male from Matheran, India, 800 metres (BIRÓ, 1902).

The Indian species differs from DAHL'S *P. lucifera* and *P. pulex* by the apparently shorter costal vein. Unfortunately the latter two latter species have never been carefully described and I have never seen them.

Chonocephalus dorsalis WANDOLLECK.

There is one female of this species from New Guinea, Friedrich-Wilhelmshafen, June 1901, and another from the same place dated July 1901.

AFRICAN SPECIES.

Puliciphora africana n. sp.

(Plate VIII. fig. 7.)

Female. Length 1—1.5 mm. Pale testaceous, the abdominal sclerites fuscous. Head rounded, the distance from the anterior margin of the front to the vertex two-thirds as great as the width of the head. Ocelli present, in a small triangle. Eyes oval, fully once and a half as large as the antennæ. Anterior margin of the front sloping forward to the center where it is obtusely pointed. The frontal macrochætæ are broken off in all the specimens, but there seem to have been four anterior ones, another at the lower angle, and ocellar row of four. Cheeks without bristles. Palpi clavate, bristly below, especially near the tips. Proboscis large, swollen and fleshy. Antennæ small, round, the arista reaching as far as the base of the abdomen. Mesonotum about two and one-half times as wide as long, the metanotum visible behind, one-third as long as the mesonotum, no trace of scutellum. Abdomen very convex, not at all depressed, but rather circular in cross section, first dorsal plate visible as a thin strip, second large, one-half as long as wide; third only one-half as long as second; fourth a little shorter; fifth much shorter; sixth visible only as a small, short curved piece behind the gland opening. All of the abdominal plates are highly polished and nearly bare. Legs moderately stout, each hind tibia with a very short spur. No trace of wings or halteres.

Three females from Kibosho, German East Africa, March 1905 (KATONA).

This is the first species of the genus to be discovered on the African continent, and it therefore widely extends the range of *Puliciphora*, which is now known to occur also in the East Indies, India, the West Indies, the United States, and probably in Europe. The present form seems to be more like the occidental species than the Indo-australian ones, although all are very similar.

Chonocephalus kiboshoënsis n. sp.

(Plate VIII. fig. 1.)

Female. Length 0.8 mm. Pale testaceous, the dorsum of the abdomen fuscous, except the first segment which is light brown. Head unusually long, viewed from the side it is about one-half longer from

the occiput to the anterior edge of the front than high. Eyes very small, oval, their longest diameter only about one-half the diameter of the third antennal joint. Antennæ small, rounded, the finely pubescent arista reaching just beyond the tip of the thorax. Palpi large, swollen, projecting one-half the length of the head-height, bristly below. Proboscis very short, fleshy. The front is rather thickly hairy, but there seem to be no bristles except a row of three weak ones on the cheek, just below the eyes. Ocelli absent. The thorax is likewise without macrochætæ, about four times as wide as long. Abdomen with six dorsal sclerites, the first longer than the second; third, fourth and fifth subequal to the second but gradually lengthening; sixth one-half longer, the first to the fifth have a line of transparent dots along the posterior margin indicating the insertion of rows of small macrochætæ. Fifth segment without a gland opening. On the venter there is a single chitinized plate near the apex. External genitalia small. Wings and halteres entirely wanting. Legs stout, the hind tibiæ each with a single very small spur. Hind metatarsus seriatly setulose as usual.

One female from Kibosho, German East Africa, March 1903 (KATONA).

This is the second species of *Chonocephalus* to be discovered in the female sex. Of the two other known species *C. dorsalis* WAND. from the East Indies previously mentioned is known in both sexes, while *C. similis* BRUES from India is known only in the male sex. The discovery of a third species in Africa so very similar to the East Indian form is certainly unexpected and widely extends the range of this most remarkable wingless genus. The striking similarity to *C. dorsalis* consists in the presence of the six heavily chitinized contiguous dorsal plates and one ventral one, the bare front and the general habitus of the body. The absence of anterior frontal bristles in the African species may be accidental as bristles are easily broken from alcoholic specimens.

Just how great the variation may be among species of these extremely degenerate wingless females and what may constitute valid specific characters I hardly feel competent to say in view of our limited knowledge of this group, but I think there can be no doubt of the propriety in recognizing the African and East Indian females as different in absence of the male of the new species. In *kiboshoënsis* the head is wider than the thorax when seen from above and the comparative lengths of the dorsal abdominal sclerites are different from in *dorsalis*.

Wandolleckia indomita n. sp.

Female. Length 0.6 mm. Uniformly pale testaceous, only the eyes, sparse bristles and macrochætæ black. Viewed from the side the front slopes rather evenly to the vertex which is sharply rounded. Near the anterior margin are four porrect macrochætæ in two pairs, one over the other. Eyes elongate oval, their longer diameter greater than that of the antennæ. Cheeks without bristles. Palpi slender, with a few short bristles toward the tips. Proboscis swollen, fleshy. Antennæ spherical, the arista reaching to the tip of the thorax and distinctly pubescent. Thorax short, about as long as the thickness of the head, destitute of macrochætæ except for two small ones at the hind angles, one at the middle of the lateral margin and one between these. On the hind margin there is a series of four or six finer bristly hairs. Abdomen oval, distinctly depressed, nearly two times as long as the head and thorax together. Second segment long; third and fourth shorter, subequal, together but little longer than the second. Fifth shorter. Sixth longer and rounded behind. The abdomen is soft and membranous, without dorsal plates of sclerites and is covered with short, sparse, fine and bristly hairs. Legs short and moderately stout, closely and finely hairy, the hind tibiæ with a distinct apical spur. Wings and halteres entirely absent.

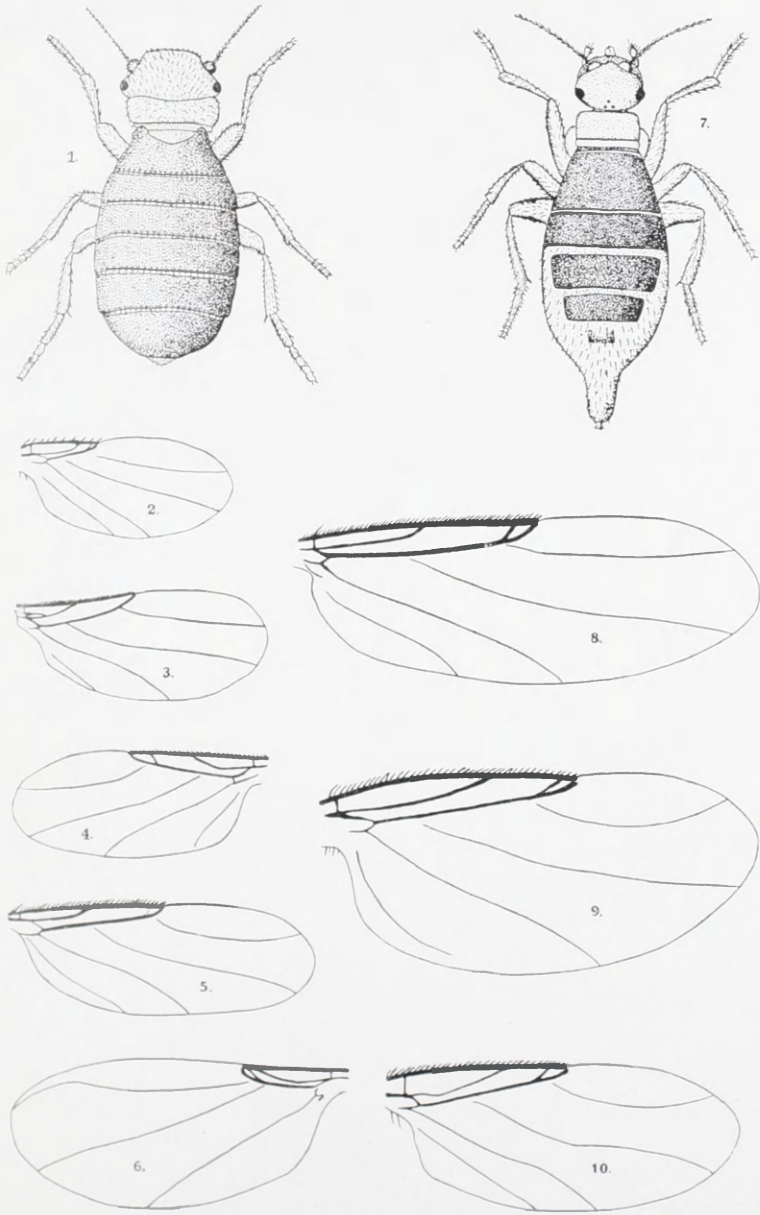
One female from Kibosho, German East Africa, March 1903 (KATONA).

Only one other species of *Wandolleckia* has been described, *W. Cooki* BRUES from West Africa, collected in Liberia by Dr. O. F. COOK on large land snails of the genus *Achatina*, and known only in the female sex. There is in the same vial with the the present female, together with other wingless forms a very small winged male which I strongly suspect belongs with the female described here. It is about the same size and color as the female and resembles exactly males of *Aphiochaeta*. The front has proclinate bristles on the anterior edge and two rows of reclinate bristles, and there is a median impressed line and an ocellar tubercle. The wings have a bristly costa with well developed first and furcate third veins. The legs have distinct spurs on the four posterior tibiæ and the hind pair is strongly setulose. If this surmised association be correct, the validity of the genus *Wandolleckia* becomes extremely doubtful.

Public Museum, Milwaukee, U. S. A.
March 31, 1907.

EXPLANATION OF PLATE VIII.

- Fig. 1. *Chonocephalus kiboshoënsis*, female.
" 2. *Aphiochaeta pauxilla*, wing.
" 3. *Puliciphora matheranensis*, wing of male.
" 4. *Aphiochaeta Biróí*, wing.
" 5. *Aphiochaeta manca*, wing.
" 6. *Phora nudicosta*, wing.
" 7. *Puliciphora africana*, female.
" 8. *Aphiochaeta fumipennis*, wing.
" 9. *Phora paraguayana*, wing.
" 10. *Aphiochaeta meridionalis*, wing.
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C. T. Brues ad nat. del.