NEW OR LITTLE-KNOWN CRANE-FLIES

PART II

by Dr. CHARLES P. ALEXANDER (Amherst, Mass.).

The Tipulide discussed in this paper are all Neotropical members of the involved genus Teucholabis Osten-Sacken. This is now considered as including two subgenera, the typical group and the more restricted subgenus Paratropesa Schiner. The group is thus entirely comparable with the closely related genus Gonomyia Meigen and its reduced subgenus Lipophleps Bergroth. Besides the two species described herein as new, the writer takes this opportunity of re-characterizing the types of certain species of the group described by Wiedemann, Schiner, Osten-Sacken and Enderlein. The types of all of these latter species are preserved in the Natural History Museum, Vienna; they were loaned to the writer for study in 1921, through the kind interest of Dr. Anton Handlirsch and the Custodian of the Diptera, Dr. Hans Zerny. The exotic collections of Tipulidae in the Carnegie Museum were kindly sent to the writer for study by Mr. Hugo Kahl, the type-specimen of T. (P.) chalybeia, sp. n., being included in this material. The writer's deepest thanks are extended to all of the above mentioned gentlemen for this co-operation in making known the difficult group of flies under consideration.

1. Teucholabis (Paratropesa) singularis (Schiner).

1868. Paratropesa singularis Schiner; Novara Reise, Dipt., p. 46, pl. 2, fig. 2.

'The type (3) in good condition but body rather moldy; only one middle and one posterior leg remains.

Male. — Length about 8 mm.; wing 9.5 mm.

Rostrum and palpi reddish brown. Antennae with the scape and basal two or three flagellar segments reddish, the remaining flagellar segments brown; basal flagellar segments oval, the outer segments becoming more elongate and attenuated. Head light reddish orange, unmarked, the vertex with vague violaceous reflexions.

Prothorax orange. Mesonotum shiny black, the posterior margin of the praescutum and the median area of the scutum conspicuously dull orange; a very indistinct capillary reddish median line on praescutum; scutal lobes and postnotum black; scutellum obscure yellow. Pleura black. Halteres dark brown, the knobs orange. Legs with the fore coxae orange; middle coxae brownish black; posterior coxae black; trochanters orange; middle femora orange; tibiae ight brown, the tarsi darker; posterior femora light yellow with a narrow but conspicuous black ring beyond the base; tibiae obscure brownish yellow, tarsi black; posterior basitarsi enlarged or flattened. Wings with a strong amber-yellow tinge, highly iridescent; stigma comparatively small, triangular, brown; veins brown Venation: Sc_1 ending a short distance beyond the origin of Rs, Sc2 some distance from the tip of Sc_1 , the latter alone about one half longer than $m \cdot cu$; Rs very strongly arcuated at origin, in alignment with R_{2+3} , r virtually in alignment with the end of Rs, or immediately before this point, close to the tip of R₁ which is here arcuated as in Teucholabis; R_{2+3} straight, about one-half longer than R_3 alone; R_2 short, straight, about two-thirds r; basal deflection of R_{4+6} straight, about equal to r and virtually in alignment with it; outer deflection of M_{1+2} arcuated, about twice m; cell 1st M_2 narrowed at its proximal end; m-cu a short distance beyond the fork of M.

Abdomen with the first segment black; remainder of abdomen orange. Hypopygium, as shown by the dried type, not highly complicated in structure; basistyles, viewed from above, slender, produced at their tips into a small black point that almost touches its fellow of the opposite side on the median line of the body. What seems to represent the mesal faces of the basistyles appear as shiny black plates on either side of the median line; immediately caudad of these a broad-based lobe that narrows rapidly to the small, knob-like head which bears several conspicuous setae. On the ventral face is a narrow, digitiform lobe that is a little thickened beyond the base. The aedeagus is very conspicuous, appearing as a cylindrical median lobe, its tip produced into an acute chitinized decurved point; on each ventro-lateral angle of the aedeagus is a dense oar-like row of long black setae that are strongly divergent.

Type, 3, Venezuela (not Colombia, as stated), 1864 (Lindig).

2. Teucholabis (Paratropesa) chalÿbela, sp. n.

General coloration shiny steel blue, the pronotum yellow; all

A PARTY OF

coxae yellow; abdominal tergites steel blue with apical lateral yellowish triangles.

Male = Length about 7.5 mm.; wing 8.7 mm.

Rostrum reddish yellow, the palpi brown. Antennae with the scapal segments brown; flagellum broken. Front and anterior portion of vertex shiny obscure yellow; vertex largely shiny steel blue.

Pronotum conspicuously yellow, the scutellum blue-black, the lateral pretergites concolorous. Mesonotum shiny steel blue, the extreme lateral ends of the suture and the posterior margins of the scutal lobes indistinctly yellowish. Pleura largely blue-black; dorso-pleural membrane yellow; a narrow transverse strip on the pteropleurite obscure yellow, densely set with microscopic silvery white appressed setulae; sternopleurite shiny reddish yellow; katepisternum yellow, densely silvery-white pubescent. Halteres broken. Legs with the coxae and trochanters obscure yellow; fore legs black, the basal fourth of the femora yellow; middle legs reddish yellow, the tarsi passing into black; posterior femora yellow, the tibiae light brown; tarsi black, the basitarsi conspicuously dilated, fusiform. Wings with a faint yellowish tinge and with a very indistinct darker band immediately before the cord and another including the broad wing apex; stigma triangular, dark brown; veins dark brown. Venation: Sc shorter than in singularis, about equal to m-cu.

Abdomen with the tergites largely shiny blue-black, tergites two to seven with yellow caudo-lateral triangles; sternites yellow, the segments narrowly ringed basally with black; hypopygium dark.

Hab. Golombia.

Holotype, 3, El Libano, Department of Magdalena, altitude 6000 feet. Type in the Carnegie Museum, Accession No. 1999.

3. Teucholabis (Paratropesa) praeusta (Osten Sacken).

1886 Paratropesa praeusta Osten-Sacken; Biol. Cent.-Amer. Dipt., vol. I, p. 8.

The lectotype (3) lacks the head and the left wing is badly, torn.

Male. — Length 9 mm.; wing 10 mm.

Female. - Length about 8 mm.; wing 7.3 mm.

Notes on the types, supplementary to the original description.

Pronotum yellow. Mesonotal praesculum with the stripes shiny brown, black anteriorly (in other specimens, entirely jet black): each scutal lobe with a black blotch, these areas converging posteriorly;

scutellum light yellow. Pleura black, the dorso-pleural membrane yellow; a yellow spot above the middle coxa on the sternopleurite; mesepisternum, the cephalic margin of the mesepimeron and a spot above the hind coxa obscure yellow; prosternum orange; mesosternum and metasternum shiny black. Knobs of halteres orange. Leg with the fore coxae, trochanters and basal three-fifths of the femora yellow, the distal two-fifths black and slightly enlarged; middle and hind coxae shiny black; trochanters obscure yellow; femora and tibiae orange yellow; fore tibiae and tarsi black; middle and posterior basitarsi reddish, the tips blackened, the remaining tarsal segments brownish black. Wings yellowish; a narrow dark brown cross-band along the cord, narrowed posteriorly; wing-tip broadly paler brown, this including all of cell R_{2} , the extreme distal end of cell 2nd R_{4} the distal half of R_3 , all but the base of R_5 and practically all of cell, 2nd M2 and M3; veins dark brown. Venation: Sci ending some distance beyond the origin of Rs, Sc2 some distance from the tip of Sc_1 , lying proximad of the origin of Rs; Rs very strongly arcuated at origin, in alignment with R_{2+3} ; r in alignment with the remaining elements of the cord; R_2 nearly perpendicular; R_{2+3} about one-half longer than R_3 ; fusion of R_5 and M_{1+2} a little shorter than R_3 ; outer section of M_{1+2} about equal to r; m short; m-cu just beyond the fork of M.

Abdominal tergite one, the basal half of two, a ring at midlength of tergite three, basal half of tergites four to seven black, the remainder of the tergites orange, excepting the hypopygium which is black; sternites obscure yellow; on sternite five is a conspicuous median depression, the blackened margins of which are filled with dense black setae. A similar condition is found in many species of typical *Teucholabis*.

The allotype female is very similar to the type but conspicuously smaller, as indicated by the measurements given above. The abdomen is black with only the apical third of each tergite obscure yellow; apical half of each sternite yellow. Genital segment orange; long valves of ovipositor reddish horn-color, with a blackened ring at base.

Lectotype, &, Jalapa, Mexico, June 6, 1871 (Bilimek).

Allotype, Q, Hiocter d' Vulcan, Mexico, 1871 (Bilimek).

A key to the known Neotropical species of *Paratropesa* has been given by the writer in an earlier paper (Ent. News, vol. 24, p. 446; 1913).

4. Teucholabis (Teucholabis) argentea, sp. n.

Related to $T.\ tri/asciata$ Enderlein; thoracic pleura with a broad silvery longitudinal stripe; male hypopygium with the aedeagus a deep compressed lobe.

Male. - Length 4.5 mm.; wing 5.8 mm.

Rostrum brown; palpi dark brown. Antennae dark brown; basal flagellar segments subglobular, passing into subpyriform; terminal flagellar segments cylindrical. Head black, with purplish reflexions.

Pronolum conspicuously yellow. Mesonotum shiny black. scutellum a little more testaceous. Pleura of the prothorax yellow. Mesopleura black, the dorsal membrane yellow; a very broad and conspicuous longitudinal stripe that is densely covered with a short appressed silvery pubescence extends from immediately behind the fore coxae, passing above the middle and hind coxae to the base of the abdomen, the posterior thoracic spiracle occupying the dorsal margin of the stripe. Halteres light brown, the knobs conspicuously yellow. Legs with the coxae and trochanters obscure yellow; femora yellow, the tips broadly and abruptly dark brown; tibiae brownish yellow, the tips narrowly darkened; tarsi dark brown; posterior basitarsi swollen. Wings subhyaline with three conspicuous brown crossbands arranged as follows: Basal band narrowly diamond-shaped, extending from the origin of Rs to the tip of vein 2nd A; second band at the cord, most intense at the stigmal area, gradually becoming paler posteriorly but attaining the caudal margin; the last band occupies the wing-tip, including about the distal third of cell 2nd R1, about the distal twofifths of cell $m R_3$ the distal half of cell $m extit{R}_5$, all of cell $m extit{2nd} extit{M}_2$, cell $m extit{M}_3$ except the basal posterior portion, and the extreme apex of cell 1st M_2 ; veins dark brown. Venation: Sc_1 extending to nearly opposite midlength of the long arcuated Rs, Sc2 some distance from the tip of Sc_1 , the latter alone nearly one-half longer than r-m; r at from onethird to one-half its length beyond the fork of Rs; cell 1st M_2 long and narrow, widened distally; m-cu at the fork of M.

Abdomen brown. Male hypopygium with each basistyle produced caudad into a cylindrical lobe that terminates in a straight, slender spine, the surface of the lobe with an abundant appressed pubescence; dististyles two, the longest a slender, feebly arcuated blade, the margins microscopically serrulate, the apex produced into a point; second dististyle small, chitinized, the apex subtruncated, the caudal margin before the tip with about three bristles. Aedeagus a very deep, compressed blade, the tip a slender black spine, before this

tip with about three conspicuous setae; base of aedeagus with a conspicuous rectangular projection.

Hab. Brazil,

Holotype, 3, Blumenau, Santa Catharina (Loth. Hetschko). Type in the Vienna Natural History Museum.

5. Teucholabis (Teucholabis) morionella (Schiner).

1868. Limnobia morionella Schiner; Novara Reise, Dipt., p. 47. Type, a \mathfrak{P} , in good condition.

Female. - Length about 4.5 mm.; wing 6 mm.

Rostrum obscure yellow, narrowly darker dorso-medially; palpi dark brown. Antennae dark brown, the basal segment obscure yellow beneath; flagellar segments oval, submoniliform. Head shiny black.

Pronotum black, the scutellar lobes and pretergites conspicuously light yellow. Mesonotal praescutum black, the usual interspaces between the median and lateral stripes moderately broad, yellow, forming a conspicuous V-shaped marking, the black median area relatively small, cuneiform in outline; a yellowish median area before the suture; scutum yellow, each lobe with a large black triangle, the point directed caudad; median lobe of scutellum light yellow, the parascutella and the postnotum black. Pleura black, the dorso-pleural membranes yellow; a conspicuous longitudinal line crosses the ventral pleurites, extending from the mesepisternum, ending immediately before the posterior coxae, this line covered with a short white appressed pubescence. Halteres dark brown, the knobs orange-yellow. Legs with the coxae black basally, passing into obscure yellow apically; trochanters obscure yellow; remainder of legs dark brown. Wings hyaline, iridescent; stigma roughly circular in outline, dark brown; veins dark brown. Venation: Sc1 ending about opposite one-fourth the length of Rs, Sc2 immediately beyond this origin; r on R_{2+3} immediately beyond the fork of Rs, traversing the stigma, the portion of the latter distad of ra little more extensive than the basal portion; cell 1st M2 pointed at proximal end; m about one-half longer than the outer deflection of M^3 ; basal section of M_{1+2} about equal to $r \cdot m$; $m \cdot cu$ immediately before the fork of M.

Abdomen brownish black, the caudal margin of tergites five and six, and of sternites two to six yellowish, broadest on the sixth segment. Ovipositor long and slender, the base black, the long-tergal valves horn-colored.

Type, Q, Venezuela, 1864 (Lindig).

This species is very distinct in its coloration. The longitudinal pleural stripe with dense whitish pubescence indicates a relationship with *T. argentea*, sp. n., and allies.

By the writer's key to the Neotropical species of *Teucholabis* (*Trans. Amer. Ent. Soc.*, vol. 40, pp. 235-239; 1914), the present species runs out correctly. The following discrepencies between the type and the original description should be noted: Coxae not *bright* yellow, obscure yellow distally; margin of praescutum not yellow, this color referring to the lateral pretergal region and the dorsopleural membrane; spots on pleura confluent and the coloration nearly white.

6. Teucholabis (Teucholabis) polita Osten-Sacken.

1887. Teucholabis polita Osten-Sacken; Berliner Ent. Zeitschr., vol. 31, pt. 2, p. 189.

Type, 3, in good condition.

Male. - Length 4 mm.; wing 5-6 mm.

Rostrum short, black. Antennae brown, the basal flagellar segments subglobular, soon passing into oval and thence into short-cylindrical. Head black.

Mesonotum black, the humeral region a little brighter. Pleura largely covered with an appressed silvery white pubescence (not mentioned by Osten Sacken). Halteres brown, the knobs conspicuously orange-yellow. Legs with the coxae black; trochanters obscure yellow; fore femora yellow, about the distal two-fifths slightly enlarged, dark brown; posterior femora brown on about the basal half, the apical fourth slightly enlarged, dark brown, the subterminal fourth conspicuously yellow; remainder of legs brownish black. Wings whitish subhyaline, conspicuously cross-banded with brown; basal band extending from vein R across the wing to the tip of vein 2nd A, widest at veins M and Cu; second band along the cord, deeper colored on the cephalic half of the wing where it appears as a very large stigmal blotch in cells Sc_1 , 1st R^1 , 2nd R_1 , end of cell R, and the bases of cells R_3 and R_5 ; this hand traverses the wing but is paler brown caudad of cell $Ist M_2$, at the base of which it is bisected by an obliterative area; the third band occupies the wing apex, this including about the distal two-fifths of cell $2nd R_1$, the distal half of cell R_3 , the distal three-fifths of cell R_5 , all of cell 2nd M_2 , all but the extreme base of cell M_8 and the extreme cephalic distal angles of cells 1st M_2 and M_4 ; cell Sc is darkened on the basal half; veins dark

brown. Venation: Sc_1 ending about opposite two-fifths the length of Rs, Sc_1 a little longer than r-m; r about one-half its length beyond the fork of Rs and on R_1 about twice its length from the tip; cell R_3 conspicuously widened before midlength, due to the bellying out of veins R_{2+3} and R_{4+5} at that point, Rs straight at origin, but conspicuously arcuated at midlength, the proximal end of cell 1st R_1 acutely pointed; cell 1st M_2 long and narrow, widened distally; m about two-thirds the outer deflexion of M_3 ; m-cu about one-third its length beyond the fork of M.

Abdomen black. Male hypopygium rather powerfully constructed for a *Teucholabis*; basistyles tumid; dorsal dististyle a short, straight, needle-like spine; ventral dististyle about equal in length, fleshy, terminating in several long setae. Aedeagus compressed, blackened, terminating in an acute decurved point.

Type, 3, Brazil (from the Winthem Collection).

The measurements given by Osten Sacken for this type are too small, no allowance having been made for curvature of the body. This condition was suspected by the writer in an earlier paper (Trans. Amer. Ent. Soc., vol. 40, p. 235, 1914).

7. Teucholabis (Teucholabis) spinigera Schiner.

1868. Teucholabis spinigera Schiner; Novara Reise, Dipt., p. 44. Type, 3, in good condition; a single leg (posterior) remains.

Male. — Length 5.2 mm.; wing 6.4 mm.

Rostrum relatively long and slender, shiny brownish black, about one-half the length of the head; palpi dark brown. Antennae dark brown; flagellar segments densely covered with white pubescence. Head black in front, the occiput, genae and sides of the vertex rather light brown.

Pronotum orange. Mesothorax entirely yellowish orange, unmarked. Halteres relatively long and slender, dark brown. Legs with the coxae and trochanters orange-yellow; remainder of legs entirely dark brownish black (fore and middle legs broken). Wings with a faint brownish tinge; a darker brown suffusion at the apex in cell $2nd\ R_1$ and the outer ends of cells R_3 , R_5 and $2nd\ M_2$; stigma dark brown, oval; a narrow brown seam along r-m and the deflection of R_{4+5} less evident on m-cu; veins dark brown Venation: Sc long, Sc, ending about opposite two-thirds Rs, Sc_1 alone a little shorter than m-cu; r on R_{2+3} about two-thirds its length beyond the fork; basal deflection of M_{1+2} with an obliterative mark; m-cu a short distance beyond the fork of M.

Abdomen black, including the hypopygium; surface dull, covered with an abundant appressed microscopic yellow pubescence and less numerous very long erect setae. Male hypopygium with the caudal extensions of the basistyles very long and slender, projecting caudad beyond the other elements of the hypopygium, straight, reddish in color, the long, acute tips blackened. One pair of dististyles protrude as long, slender, almost straight black rods, their surface microscopically hairy, these rods decussate across the genital chamber. Other appendages are not conspicuous in the dried type.

Type, 3, Venezuela (not Colombia, as stated), 1864 (Lindig).

By means of the writer's key to the Neotropical species of *Teucholabis*, *T. spinigera* runs down satisfactorily In that key, couplet 15 b, reading « head reddish » should be modified to « head more or less reddish or pale brown ».

8. Teucholabis (Teucholabis) flavithorax (Wiedemann).

1821. Limnobia flavithorax Wiedemann; Dipt. exotica, p. 43.

Type, Q, legless, with the abdomen of some other, species of Tipulid glued to the thorax.

Female. - Wing 8.5 mm.

Rostrum moderately elongate, about two-thirds the length of the head, black; palpi dark brown. Antennae dark brown throughout; flagellar segments elongate-oval. Head black.

Pronotum black. Mesonotum orange-yellow. Pleura with the dorsal sclerites orange-yellow, the ventral pleurites abruptly black, including the propleura, the ventral portions of the mesepisternum and mesepimeron, and the metapleura ventrad of the haltere; a conspicuous tuft of setae on the caudal margin of the mesepimeron, ventrad of the wing-root. Halteres black. Legs with the coxae and trochanters black; remainder of legs broken. Wings with a pale brown suffusion, more saturated along the costal margin, including cells C, Sc and the apical margin of cells 2nd R_1 and R_3 ; stigma elongate, darker brown, but its limits ill-defined; veins dark brown. Venation; Sc_1 ending just beyond midlength of Rs, Sc_2 not far removed from the tip of Sc_1 , the latter about twice Sc_2 ; r slightly oblique in position, a little less than its length beyond the fork of Rs; cell Ist M_2 relatively long and narrow; m-cu just beyond the fork of M.

Abdomen lost, the wrong one having been re-attached to the type. Type, φ , Brazil (from the Winthem Collection).

Enderlein (Zool. Jahrb., Syst., vol. 32, pp. 70-71, fig. S 1; 1912) has correctly identified this species.

9. Teucholabis (Teucholabis) schineri Enderlein.

1868. Teucholabis flavithorax Schiner (nec Wiedemann); Novara Reise, Dipt., pp. 43-44.

1912. Teucholabis schineri Enderlein; Zool. Jahrb., Syst., vol. 32,

pp. 71-72.

Enderlein based his name on Schiner's mis-determination of *Teucholabis flavithorax* (Wiedemann). Enderlein had not seen the actual specimens that Schiner had before him so that a further discussion of the type-material is of especial value.

Female. - Length about 6.5 mm.; wing 6 mm.

Rostrum black, shorter than in *flavithorax*, about one half the length of the head or a little less. Antennae with the first scapal segment dark brown; second scapal and first flagellar segments pale brownish yellow; remaining flagellar segments brown; flagellar segments elongate oval. Head shiny black.

Prothorax black. Mesonotum orange-yellow, on the anterior half of the praescutum a conspicuous subtriangular median black area. Pleura obscure orange-yellow, not so conspicuously darkened ventrally as in flavithorax. Sternum concolorous with the pleura. Halteres black. Legs with the coxae and trochanters obscure brown; femora and tibiae black: fore and middle femora beyond the base with a narrow rufous ring that is nearly destitute of the conspicuous bristles found elsewhere on the legs; posterior legs normal; tarsal segments one and two dirty whitish, the tips narrowly darkened; remaining tarsal segments brownish black. Wings broad, more uniformly tinged with darker brown than in flavithorax, the costal region but little darker than the surrounding membrane; vague pale streaks in cell R adjoining vein M, in cell Cu and in the center of cell 2nd A; veins dark brown. Venation: Sc_1 ending just beyond midlength of Rs, Sc_2 rather distant from the tip of Sc1, more so than in flavithorax, Sc1 alone a little longer than m-cu; Rs long, almost straight; r on R_{2+3} about one and one-half its length beyond the fork; cephalic portion of r and the distal section of R_1 nearly atrophied; m-cu variable in position, from less than to more than its own length beyond the fork of M, thus placed at from one-fourth to one-third the length of cell 1st M2.

Abdomen shiny black. Ovipositor with the valves yellowish horn-color.

Lectotype, \mathfrak{P} . Venezuela, 1864 (Lindig), bearing Schiner's determination-label « Teucholabis flavithorax W. ».

Paratype, Sex ?, a fragment that from Schiner's notes would be a male.

Teucholabis schineri is allied to T. flavithorax (Wiedemann) but is a valid species.

NOTES SUR LES MOUSTIQUES DE L'AFRIQUE MINEURE, DE L'ÉGYPTE ET DE LA SYRIE. II.

par E. SÉGUY (Paris).

- 1. Culex deserticola Kirkpatrik 1925: 104, 3, fig. 74, 75, 96, 97, 116, 127; Edwards, 1927: 127. Ajouter cette espèce au catalogue des Moustiques de l'Afrique mineure. Elle a été signalée de Tunisie; Tamerza (Langeron, 1921; 378, fig. 9 [apicalis]).
- 2. Culex apicalis (Adams) Edwards, 1926: 126; Lang, 1920: 72, fig. 129. Ajouter à la description de la larve les caractères mis en valeur par M. le Dr Senevet (1927: XX, 449).
- 3. Culex hortensis Ficalbi. Trouvé en nombre à Villecresnes (Seine-et-Oise), 24. VIII. 27 (A. Bayard); Maroc: Rabat (C. Alluaud); Algérie: Fort-de-l'Eau (J. Surcouf); Tunisie: Nefta (C. Dumont).
- 4. Culex Lavieri Larrousse. Edwards, 1926; 133, 17. Placer cette espèce dans le groupe du Culex mimeticus (voir Diptera, II, p. 13, note I).
- 5. Culex prosecutor n. n. Le nom du Culex pseudomimeticus Séguy (Diptera, II, 15) doit être changé. Ce dernier nom a déjà été employé par M. le Pr Sergent pour désigner une variété particulière du Culex mimeticus (1).
- 6. Culex Theileri (Theobald) Edwards, 1926: 133, 19. A été signalée du midi de la France par MM. Galliard et Coutelen sous le nom de C. tipuliformis (2). Je l'ai trouvée également dans un lot de larves provenant d'un marais de Camargue (Bouches-du-Rhône) avec celles des C. mimeticus et prosecutor. Rapportée également de

^{1.} Ed. Sergent, Ann. Soc. ent. Fr., LXXVIII, 1909, p. 445.

^{2.} C. R. Soc. biol., XCV, p. 1025.