

NEW NEARCTIC CRANE-FLIES (TIPULIDÆ,
DIPTERA) PART V.BY CHARLES P. ALEXANDER, UNIVERSITY OF KANSAS,
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(Continued from page 165.)

Genus *Tricyphona* Zetterstedt.***Tricyphona protea***, new species.

General coloration pale yellowish brown; wings with the free portion of vein R_2 very long, only a little shorter than the sector; cell R_4 short-petiolate; cell 1st M_2 open by the atrophy of m .

Male.—Length 6.4 mm.; wing, 6.5 mm.

Described from an alcoholic specimen.

Rostrum and palpi pale; palpal segments nearly subequal, the fourth a little longer than the third and more slender. Antennæ dark brown, the basal segments paler; flagellar segments oval, the terminal segment not elongated. Head yellowish, darkest on the vertex.

Thorax light yellowish brown without apparent darker stripes. Halteres short, pale, the knobs large. Legs with the coxæ and trochanters dull yellow; remainder of the legs broken. Wings a pale yellowish tinge; veins yellowish brown. Venation: Sc_1 ending just before the fork of R_{2+3} ; Sc_2 some distance before the origin of the sector, this distance about equal to the basal deflection of Cu_1 ; vein R_2 fused with R_1 for a short distance back from the wing-margin, this fused portion about equal to $r-m$; petiola of cell R_4 short, less than $r-m$; cell 1st M_2 open by the atrophy of m .

Abdominal tergites dark brown, paler laterally; sternites dull yellow; apices of the segments darker brown; hypopygium dull yellow.

Habitat.—Washington.

Holotype.—♂, Mt. Rainier, Washington.

In many respects this is a very remarkable fly, easily told from all its relatives by the great length of vein R_2 before its fusion with R_1 . I have pointed out in another paper the reasons for changing the nomenclature of the radial veins in the *Pediciini*, this vein R_2 having been hitherto considered as being the radial cross-vein.

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SUBFAMILY TIPULINÆ.
Genus *Tipula* Linnæus.

Tipula margarita, new species.

General coloration of the head and thorax light gray; antennæ short, black, the three basal segments orange-yellow; femora with a broad, subterminal yellow ring; wings with four brown cross-bands; abdomen yellow, the tergites with a broad, dark brown median and narrow dark brown sublateral stripes; lateral margin of the tergites broadly light gray; male hypopygium with the ninth tergite large, subquadrate, with a deep median split; ninth pleurite complete.

Male.—Length about 13 mm.; wing 14.4 mm.

Frontal prolongation of the head long, grayish above, more reddish laterally, nasus long and slender. Palpi with the first segment reddish, the remainder black. Antennæ with the first segment long and slender, orange-yellow, a little grayish pruinose on the basal fourth; segments two and three orange-yellow, remaining flagellar segments dark brown, the apices only a little more reddish; flagellar segments very short with long verticils, the basal swelling inconspicuous, only a little thicker than the rest of the segment. Head gray, on the disk of the vertex suffused with brown; vertical tubercle prominent, narrowly split by a deep, impressed median line; occiput more reddish.

Thorax gray, the praescutum with three dark brownish gray stripes, the median one longest, broadest in front, narrowed to the suture; scutum light gray with two darker gray blotches, the larger of which lies on the scutal lobes; scutellum light gray with a faint, reddish cast; postnotum light gray with a narrow, indistinct median brown line which is continued forwards on to the scutellum. Pleura light grayish pruinose. Halteres rather short, yellow, the knobs dark brown. Legs with the coxæ light gray pruinose; trochanters dull yellow; femora yellow, beyond the middle passing into light brown; tips broadly black, a broad, yellow subterminal annulus; this yellow femoral ring is most distinct on the fore legs, less evident on the posterior legs; tibiæ and tarsi dark brown. Wings whitish with a heavy brown pattern; dark brown blotches at the arculus, stigma, and a smaller one at the origin of the sector; four grayish brown cross-bands, the first

basal in position occupying the cubital and anal cells; the second band about mid-length of the basal cells, darkest in cells *R* and *M*, in the anal cells paler but more diffused; the third band at the cord, darkest near the stigma and along *Cu*; fourth band occupying the wing-apex, darkest in the apices of cells *R*₂ and *R*₃, caudad of these paler; base of the wing, costal and subcostal cells indistinctly tinged with yellow; veins dark brown. Venation: vein *R*₂ persistent for its entire length; petiole of cell *M*₁ shorter than this cell; cross-vein *m-cu* present, situated at about the basal third or quarter of cell 1st *M*₂.

Abdominal tergites yellow with a very broad, dark brownish black dorsal stripe beginning on segment two, continuing to segment seven; this occupies most of the dorsum of all these segments being interrupted caudally by a broad, yellowish ring; lateral margins of the tergites very broadly silvery, caudal margins very narrowly of the same colour; a narrow, interrupted, dark brownish black line just inside the gray margins; segments eight and nine brown. Sternites light yellowish brown with an indistinct, pale brownish line, the apical sternites light brown. Male hypopygium enlarged; ninth tergite very large and prominent, subquadrate, the dorsum almost flat, not chitinized; caudal margin with a very deep, narrow, median split, the adjacent lobes very broad, their apices almost truncated, very narrowly chitinized. Ninth pleurite small, complete. Ninth sternite deeply and broadly split, the margins fringed with abundant long, pale hairs that are decussate across this median notch. Eighth sternite almost straight or with a very broad, V-shaped notch, on either side with a large tuft of yellow hairs that are decussate across the median line.

Habitat.—New York.

Holotype.—♂, Ithaca, Tompkins Co., New York, June 12, 1915.

This beautiful *Tipula* is very different from any species that I have ever seen, in some ways suggesting *Tipula ternaria* Loew of Northeastern North America but in reality a very different species. The yellow subterminal annulus on the femora will separate the fly from all its relatives in Eastern North America.

Tipula kirbyana, new species.

Allied to *T. whitneyi*; general colour of the head and thorax light gray; a narrow, brown or black dorso-median vitta extends the length of the thorax and abdomen; antennæ black; femora strongly incrassated; wings indistinctly marked with pale brownish clouds; abdomen reddish yellow with a brown dorso-median black stripe.

Male.—Length 10.2 mm.; wing 11.7 mm.

Palpi dark brown. Frontal prolongation of the head moderately elongated, deep chestnut-brown, above sparsely dusted with gray; nasus lacking. Antennæ dark brown, the scapal segments a little more reddish and sparsely dusted with gray; flagellar segments rather short, deeply incised, the basal swelling shorter than the pedicel of each segment. Head gray, the vertical tubercle large, prominent, with an indistinct, brown median line that becomes indistinct behind; eyes very small, widely separated.

Thorax light gray, the usual praescutal stripes not very distinct, the median one tinged with brown; scutellum more reddish with an indistinct, median brown line; postnotum gray with a brown, median line. Pleura light gray, the dorso-pleural membrane obscure yellowish. Halteres light brown, the knobs a little darker brown. Legs with the coxæ long and powerful, light gray; trochanters chestnut-brown; femora short and stout, considerably incrassated apically, reddish brown; dark brown at the tips; tibiæ dull brownish yellow, the tips darkened; tarsi dark brown, the metatarsi paler. Wings slightly crumpled, possibly the first indications of degeneracy; membrane indistinctly blotched with brownish; cells *C* and *Sc* a little more yellowish; stigma indistinct, brown; clouds of brown at the origin of *Rs*; along the cord in cell *M*; apex of cell *1st A*, etc. Venation: vein *R*₂ persistent but pale at its tip; cell *1st M*₂ very small and short, only a little longer than broad; fork of cell *M*₁ deep; cross-vein *m-cu* obliterated by the fusion of *Cu*₁ on *M*₃₊₄.

First abdominal tergite brownish basally, the remainder of the dorsum of segments 1 to 8 light reddish yellow, the segments broadly ringed with yellowish; a very conspicuous black median vitta runs the length of the abdomen, interrupted only by the yellow caudal margins to the segments; this vitta begins on segment 1 and continues to the eighth tergite;

lateral margins of the tergites broadly yellowish. Sternites reddish brown with an indistinct, narrow, brown median line; lateral portions of the sternites infuscated, caudal margins of the segments yellowish. Male hypopygium with the ninth tergite rather prominent, the caudal margin with a broad and deep, U-shaped median notch; the basal portion of the tergite is tumid, shiny chestnut but a broad margin around the notch is flattened, the extreme edge narrowly blackened, chitinized, lateral lobes truncated. Ninth pleurite complete, semicircular; outer pleural appendage elongate-cylindrical, clothed with long, golden hairs; inner pleural appendage very long and narrow, jutting into the notch of the tergite, the outer edge clothed with long, pale hairs that project backward to produce a hystericiform appearance; apex of the appendage shiny chestnut-brown. From the ventral caudal angle of the pleurite arises a shiny, chestnut-brown, flattened lobe that is directed caudad, its apex truncated. Ninth sternite with a deep, V-shaped median notch that extends a little more than half the distance to the margin of the eighth sternite. Eighth sternite unarmed.

Habitat.—Alaska.

Holotype.—♂, Point Barrow, Alaska, July 14, 1898.

This species is closely allied to *Tipula whitneyi* Alex. from the Pribilof Islands, Alaska, but is readily separated by the full-winged males and the details of the hypopygium.

NOTE ON OVIPOSITION OF GASTEROPHILUS NASALIS L.

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In the November, 1892, issue of Entomological News, pages 227-8, I published some notes on this subject, in which I stated that "I noticed the fly alight several times, always exactly in the region ventrad of the first cervical vertebræ." This observation relates to a female which I captured May 15, 1892, while it was flying at the throat of my horse, near Las Cruces, New Mexico. In the same notes I quoted Brauer's statement (Mon. Oestr., page 60) that "according to Dr. Green *G. nasalis* deposits its white eggs in the region of the throat of the horse." I further stated that I had not found the eggs of the fly, though I searched the ventral region of the throat after capturing the above female.

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