

**Undescribed Species of Crane-flies from the Eastern
United States and Canada (Dipt. : Tipulidae).
Part IV.**

By CHARLES P. ALEXANDER, Massachusetts Agricultural College, Amherst, Massachusetts.

In the present installment under this general title, four undescribed species of the genus *Tipula* from the Southeastern United States are discussed. As before, all of these species were collected by my friend, Professor J. Speed Rogers, to whom my sincere thanks are extended for the privilege of examining this important series. The types have been returned to Professor Rogers.

***Tipula osceola* sp. n.**

Belongs to the *tricolor* group; allied to *T. sayi* Alexander and *T. ludoviciana* Alexander; antennae of male relatively long, the flagellar segments very strongly constricted so as to appear binodose.

♂. Length about 14 mm.; wing 12.5 mm.; antenna about 5 mm. ♀. Length about 20 mm.; wing 17-18 mm.

Frontal prolongation of head light gray above, darker laterally, the nasus slender; palpi brownish black. Antennae (♂) relatively elongate, conspicuous, the segments strongly constricted so as to appear binodose; scape pale, the basal segment pruinose; first flagellar segment simple or nearly so, obscure yellow; second flagellar segment feebly bicolorous, the apex and constricted portion being pale, the remainder black; the succeeding two or three segments have the extreme apex pale; the remainder of the organ black. In the female, the flagellar segments are simple or very nearly so but the individual segments are strongly constricted at the incisures. Head light gray with a broken capillary brown median vitta.

Mesonotal praescutum buffy, the lateral margins gray, the disk with three brown stripes that are narrowly margined with darker brown, the median stripe further divided by a capillary dark brown vitta; lateral stripes more nearly entire; scutum buffy, with brown marks on the lobes, the caudal margin and remaining sclerites of the mesonotum clear light gray pruinose; scutellum with a very tenuous capillary brown median line. Pleura gray. Halteres elongate, the stem brownish yellow, the knob dark brown.

Legs with the coxae light gray pruinose; trochanters brownish yellow, more sparsely pruinose; femora yellowish brown, gradually darkening, the distal third or more black; remainder of legs black.

Wings of the general pattern of *T. sayi*, the dark brown costal margin followed by a whitish area of nearly equal width, the remainder of the wing strongly suffused with paler brown. Venation: Distal section of R_2 entire but very pale; vein 2nd *A* long, the cell correspondingly narrow.

Abdominal tergites brownish yellow, the lateral margins of the segments sparsely pruinose; basal impressions black; sternites similar; hypopygium pale. Male hypopygium with the lobe of the tergal region very broad, entire. Outer dististyle pale. Abdomen of female more elongated. Ovipositor with the tergal valves long and slender.

Habitat.—Florida. *Holotype*: ♂, Gainesville, Alachua County, November 22, 1925 (*J. S. Rogers*); No. 192. *Allotopotype*: ♀, November 10, 1923; No. 101. *Paratopotypes*: 8 ♂♀, October 27, 1923—November 22, 1925 (*J. S. Rogers*).

***Tipula maculipleura* sp. n.**

Belongs to the *tricolor* group; closely allied to *T. floridensis*, Alexander; thoracic pleura conspicuously marked with brown.

♂. Length about 15mm.; wing about 17 mm.

Generally similar and very closely allied to *T. floridensis*, differing especially in the coloration and details of structure of the male hypopygium.

Antennae bicolorous; wing-apex entirely darkened; whitish fascia at the cord not entirely traversing the wing.

Thorax yellowish, with conspicuous brown markings, including the following areas on the pleura: A large spot on the cephalic half of the anepisternum; ventral half of the sternopleurite and the propleura. The body of the type is discolored and it cannot be stated whether the pleura is heavily pruinose, as is usual in the group. Wings very similar to *floridensis*; cell *C* broader and more yellowish.

Abdominal tergites dark, the lateral margins of the segments broadly pale, the caudal margins more narrowly of this color; eighth tergite with the caudal margin broadly buffy. Male hypopygium with the ninth tergite dark, the caudal margin produced into an elongate median lobe that is a little narrowed shortly before the truncated or subtruncated apex; surface of this lobe with microscopic gray setulae; median area of the basal half of the lobe slightly elevated into a linear ridge.

Habitat.—Tennessee. *Holotype*: Allardt, Fentress County, altitude 1650 feet, June 14, 1924 (*J. S. Rogers*); No. 28.

The only other regional member of the *tricolor* group with the thoracic pleura conspicuously marked with brown is *T. subeluta* Johnson, an otherwise very distinct species.

***Tipula synchroa* sp. n.**

♂. Length about 7.5-8.5 mm; wing 7.8-9.5 mm. ♀. Length 9-11 mm.; wing 9.5-10 mm.

Generally similar to *T. annulicornis* Say, differing chiefly in the fact that the two sexes are similar in color, not dimorphic as in the last-named species. Antennae (♂) elongate, bicolorous, the basal portions of the segments being black, the distal portions yellow.

Mesonotal praescutum almost uniformly light brown, with a capillary darker brown median vitta. Wings a little more tinged with brown than in the males of *annulicornis* but less darkened than in the females of the same species.

Abdominal segments yellowish brown or light brown, the caudal margins of the segments narrowly brownish black. Median lobe of the ninth tergite of the hypopygium somewhat less compressed.

Habitat.—Florida. *Holotype*: ♂, Gainesville, Alachua County, March 4, 1922 (*J. S. Rogers*); No. 18. *Allotopotype*: ♀, March 18, 1922; No. 29. *Paratopotypes*: ♂, September 15, 1923, No. 86; ♀, March 10, 1923, No. 64.

***Tipula oxytona* sp. n.**

Allied to *T. georgiana* Alexander, differing especially in the coloration of the body and wings and the pointed posterior lobes of the inner dististyle of the male hypopygium.

♂. Length about 10-11 mm.; wing 11-12 mm.

Frontal prolongation of the head relatively elongate, shiny brownish yellow; nasus lacking; palpi dark brown, the basal segment paler. Antennae with the scapal segments yellow, the flagellar segments dark brown. Head suffused with brown, darker medially, the orbits more buffy.

Mesonotal praescutum brownish buffy, with three conspicuous brown stripes that are slightly margined laterally with darker brown; an ill-defined capillary brown median vitta; in some specimens, the anterior end of the median stripe is paler and in others all of the praescutal stripes are poorly-defined except for the narrow darker margins and median capillary vitta; scutal lobes buffy, largely concealed by two confluent brown areas; scutellum brownish testaceous, darker medially; postno-

tum brown, sparsely pruinose. Pleura pale whitish gray pruinose, the anepisternum and sternopleurite indistinctly variegated with darker. Halteres pale, the knobs brown.

Legs with the coxae and trochanters pale; femora brownish yellow, the tibiae narrowly dark brown; tibiae brown, the tips scarcely darkened; tarsi passing through brown to brownish black.

Wings with a faint brownish tinge, the stigma brown; costal region brownish yellow; wing-base and a seam along *Cu* similarly colored; obliterative area crossing cell 1st M_2 . Venation: Petiole of cell M_1 , about two-fifths to one-half the cell.

Abdomen brownish yellow, the caudal and especially the lateral margins of the tergites paler. Male hypopygium large and conspicuous, constructed much as in *georgiana*. Ninth tergite with the lateral lobes strongly incurved, the shiny median lobe obtusely rounded. Posterior lobes of the inner dististyle produced caudad into long conspicuous flattened blades that run out into subacute points, very different in shape from the short, broad, obtuse blades of *georgiana*.

Habitat.—Florida, *Holotype*: Marion County, April 4, 1926 (*J. S. Rogers*); No. 4. *Paratopotype*: ♂; *paratypes*: 3 ♂♂, Gainesville, Alachua County, February 12-14, 1922 (*J. S. Rogers*); Nos. 3, 4.