

NEW NEARCTIC CRANE-FLIES (TIPULIDAE, DIPTERA),  
PART XXIV.

BY CHARLES P. ALEXANDER,  
Massachusetts State College, Amherst, Mass.

The preceding part under this title was published in 1945 (Can. Ent. 77: 1-6). In the present article I am describing various novelties from the western United States and Canada, received from different entomologists who are listed under the individual species and to whom my sincere thanks are extended. Except where indicated to the contrary, the types of the various novelties are preserved in my personal collection of these flies.

***Tipula (Yamatotipula) nuntia* n. sp.**

Allied to *fulvilineata*; general coloration grey, the praescutum with four greyish brown stripes that are broadly margined with slightly darker brown, with a still darker median vitta; antennae relatively long, the basal flagellar segments bicolored, brownish black, their bases obscure yellow; wings pale brown, variegated with darker brown and whitish subhyaline, the latter including a large discal area in Cell *M* and before cord; cells beyond cord darkened, a little paler in the medial field; abdominal tergites grey pruinose, with two broad dark brown sub-lateral stripes; the lateral tergal borders broadly yellow; male hypopygium with the caudal margin of tergite with two obtusely rounded lobes; inner dististyle with the rostral portion flattened, the apex truncated; posterior portion of style with three darkened lobes, the most posterior split at apex into two obtuse lobes.

*Male.* Length about 14 mm.; wing 14 mm.; antenna about 5 mm.

Frontal prolongation of head short, only about one-half as long as remainder of head, grey above, more brownish yellow on sides; nasus long and conspicuous; palpi dark brown. Antennae relatively long; scape and pedicel dark brown, grey pruinose, proximal four or five flagellar segments bicolored, the basal enlargements obscure yellow, the remainder brownish black, the outer segments uniformly blackened; first flagellar segment cylindrical, with about the proximal half yellow; succeeding segments with the basal swellings feebly developed; verticils sparse and very short. Head light grey with a dark median area.

Pronotal scutum grey; scutellum obscure yellow. Mesonotal praescutum with the ground clear grey, with four greyish brown stripes that are broadly margined with slightly darker brown, the intermediate pair separated by a much darker capillary median vitta; scutum grey, the lobes extensively darkened; posterior sclerites of notum light grey, with a narrow brown median vitta; pleurotergite grey, variegated with yellow, especially on posterior border of the katapleurotergite. Pleura clear light grey, the metapleura paling to yellow; dorsopleural membrane buffy yellow. Halteres dark brown, the base of stem restrictedly yellow. Legs with the coxae light grey; trochanters yellow; femora and tibiae light brown, the tips narrowly blackened; tarsi passing into black; claws toothed. Wings relatively narrow, the ground color pale brown, variegated with darker brown and whitish subhyaline, prearcular and costal fields more uniformly brownish yellow; the darker pattern includes a seam behind the costal border, involving all of cell *R* except the distal end, stigma, anterior cord, and a comparable brown seam along *Cu* and *m-cu*; cells beyond cord uniformly paler brown, the median field a trifle paler than the radial; the pale areas include a major discal mark involving all the cell *M* except the distal margin and a broad oblitative patch before cord and stigma, becoming more yellowed at the costal border; no brightening in the cells beyond cord, excepting the posterior cells and 1st *M*<sub>2</sub> which are a trifle paler; veins brown. Venation: *Rs* a little less than three times *m-cu*; cell 2nd *A* relatively narrow,

Abdomen with the tergites medially broadly grey pruinose, the caudal borders narrowly pale; a broad dark brown sublateral stripe, the lateral tergal borders broadly yellow; impressed areas on basal rings of tergites conspicuous; sternites concealed by the overlapping tergal borders; hypopygium brownish yellow. Male hypopygium having the posterior border of the ninth tergite produced into two obtuse lobes that are separated from one another by a small U-shaped notch; lobes provided with relatively sparse, short, strong, spinous setae. Outer dististyle broadly flattened, the greatest width exceeding two-thirds the length, the apex obtusely rounded. Inner dististyle with the rostral portion flattened, the apex truncated, the apical angles, especially the lower one, obtusely rounded; outer margin of rostrum with numerous erect, long, yellow setae that are strongly curved at their tips; posterior portion of style complex, including three more or less distinct darkened lobes, the most posterior, presumably representing the outer basal lobe, split into two obtuse lobules, the paler one tipped with several strong setae. Gonapophysis at apex expanded into a broadly flattened head.

*Habitat*: Washington (Whitman County).

*Holotype*: ♂, Pullman, July 4, 1922 (A. L. Melander); Alexander Collection through courtesy of Doctor Melander.

The present fly is nearest *Tipula* (*Yamatotipula*) *fulvilineata* Doane, from which it is readily distinguished by the bicolored basal flagellar segments, the different wing pattern, and the distinct details of the hypopygium, especially the tergite and inner dististyle.

***Tipula* (*Oreomyza*) *banffiana* n. sp.**

Size above medium (wing, male, about 16 mm.); general coloration grey, the praescutum with four entire dark brown stripes; antennae with basal two segments yellow, flagellum black; halteres with stem yellow, knob dark brown; femora and tibiae yellow, the tips narrowly infuscated; wings whitish subhyaline, clouded with dark brown and brownish grey, the ground including extensive areas before and beyond the cord and near the wing base; abdomen yellow, the tergites with three inconspicuous brown stripes, the outer segments, including hypopygium, dark brown; ovipositor with cerci long and slender; male hypopygium with the caudal border of the ninth tergite broadly notched; inner dististyle a broad flattened subquadrate yellow blade, the outer apical angle produced into a blackened spine; eighth sternite narrowed outwardly, at apex bearing two small fleshy lobes.

*Mal.*: Length about 13-14 mm.; wing 15.5-16 mm.; antenna about 3.2 mm.

*Female*. Length about 21 mm.; wing 18 mm.

Frontal prolongation of head moderately long, distinctly shorter than remainder of head; brown, heavily grey pruinose on dorsal surface; nasus distinct; palpi black. Antennae with scape and pedicel clear light yellow, flagellum black; flagellar segments only moderately incised; verticils shorter than the segments. Head grey, light grey in front and on the tumid vertical tubercle; posterior vertex with darkening on sides and as a median vitta.

Pronotum brownish grey. Mesonotal praescutum grey, with four entire dark brown stripes, the median ground vitta clearer grey; interspaces somewhat more obscured grey with tiny black setigerous punctures; posterior sclerites of notum grey, each scutal lobe vaguely patterned with brown; scutellum somewhat more brownish grey; a more or less distinct central dark line on mediotergite; pleurotergite darker grey on the anapleurotergite than on the clear light grey katapleurotergite. Pleura light grey, vaguely patterned with darker on the anepisternum and ventral sternopleurite. Female with a more evident dorsal dark line on anepisternum; dorsopleural membrane buffy yellow, weakly infuscated behind in both sexes. Halteres with stem yellow, knob dark brown. Legs with coxae light grey; trochanters yellow; femora and tibiae obscure yellow, the tips narrowly and gradually infuscated; basitarsi obscure yellow, passing into brownish black; claws (male) toothed.

Wings with the ground color whitish subhyaline, most extensive on proximal third of wing; stigma dark brown; somewhat paler brown clouds at origin of *Rs* and over anterior cord; still paler brownish grey clouds over most of wing, especially the outer half or more, more intense as a broken band at near one-third the length of wing, in outer portion of cell *M*, and in the apical cells; the whitish ground includes a band beyond stigma, wider and more distinct in female, extending into base of cell *M*<sub>3</sub>, in male more interrupted in base of cell *R*<sub>5</sub>; the white band before cord similarly developed, in female meeting the post-stigmal area in cell 1st *M*<sub>2</sub>; further whitish areas include a vague brightening in outer end of cell *R*<sub>3</sub>, end of vein 1st *A*, outer end of cell 1st *A* near vein 2nd *A*, and elsewhere near the wing base; veins dark brown, more yellowish brown in the paler fields. Venation: *m-cu* long, from one-half to about two-fifths *Rs*; *R*<sub>1</sub> + <sub>2</sub> pale but entire.

Abdominal tergites chiefly yellow; the first segment more pruinose; a narrow median brown stripe in female, much less indicated in male; tergites with sublateral dark stripe slightly indicated, the lateral tergal borders paling to grey; basal sternites yellow; outer segments, including hypopygium, chiefly dark brown. Female with cerci long and slender, straight, entirely smooth. Male hypopygium with the ninth tergite having the caudal margin broadly emarginate, at base of notch with a small square incision that leads cephalad into a dorsal groove; at center of this smaller notch with a tiny compressed point or microscopic blade; adjoining angles of the notch produced into small acute spinous points; lateral tergal lobes obtusely rounded. Ninth sternite with the appendage small but elongate, inconspicuous. Basistyle entire, the posterior border convexly rounded, not produced. Outer dististyle elongate, flattened, widest at and beyond midlength, the tip obtusely rounded. Inner dististyle a broadly flattened subquadrate yellow blade, at apex narrowed into the beak, the lower beak close to the tip of the latter; outer posterior angle of style produced into a short, erect, blackened spine, the corresponding basal angle produced into a somewhat smaller similar point; entire posterior portion of style with abundant microscopic setulae and a fringe of longer yellow setae. Phallosome terminating in a blackened spinous point that is subtended by two shorter, much more slender, yellowish spines. Eighth sternite moderately sheathing, narrowed outwardly, the apex produced into two small fleshy lobes that are provided with long yellow setae.

*Habitat*: Alberta.

*Holotype*: ♂, Banff, July 15, 1922 (C. B. D. Garrett). *Allotopotype*: ♀. *Paratopotypes*: 2 ♂ ♂; holotype and allotype in Canadian National Collection, paratypes in Alexander Collection.

From the relatively few described species of the subgenus so far discovered in the western Nearctic Region, the present fly is well distinguished by the very distinct male hypopygium, particularly the inner dististyle.

### ***Tipula (Lunatipula) tenaya* n. sp.**

Allied to *spendens*; general coloration of thorax yellow, the praescutal stripes poorly differentiated; legs yellow, only the outer tarsal segments darkened; wings brownish grey, the prearcular and costal fields clear yellow; stigma small, pale brown; abdomen yellow, tergites three to six with conspicuous, sublateral, dark brown spots; male hypopygium with the tergite very broad, its caudal border widely emarginate, the small lateral lobes weakly armed; basistyle produced into a stout lobe that is weakly bifid at apex; outer dististyle very small; eighth sternite narrowed outwardly, the apex emarginate, fringed on either side of midline with long yellow setae.

*Male*. Length about 13-13.5 mm.; wing 14-14.5 mm.; antenna about 4-4.2 mm.

*Female*. Length about 16 mm.; wing 15 mm.

Frontal prolongation of head relatively long, a little shorter than the remainder of head, yellow, sparsely pruinose dorsally at base; nasus long and slender;

palpi with basal three segments brownish yellow, the remainder dark brown. Antennae with scape and pedicel yellow; first flagellar segment obscure yellow, more infuscated apically beneath, remainder of antenna black; flagellar segments only moderately incised; longest verticils a little shorter than the segments. Head grey, darker medially, clear light grey on front and orbits; a more or less distinct darker median vitta on vertex.

Pronotum brownish yellow. Mesonotum chiefly obscure yellow to brownish yellow, the praescutal stripes scarcely or poorly differentiated from the ground. Pleura yellow, very sparsely pruinose; dorsopleural membrane yellow. Halteres with stem obscure yellow, the base narrowly clear yellow, knob dark brown. Legs with the coxae and trochanters yellow; remainder of legs yellow, the outer tarsal segments dark brown; claws toothed. Wings brownish grey, the prearcular and costal fields clear yellow; stigma small, pale brown; obliterative band at and before cord narrow and relatively inconspicuous, extending into base of cell  $M_3$ ; most of veins narrowly and insensibly bordered by whitish subhyaline; veins dark brown, those in the luteus fields clear yellow, the tip of vein *Sc* abruptly darkened. Venation: *Rs* about two and one-half to nearly three times *m-cu*;  $R_1 + 2$  entire.

Abdomen obscure yellow, the tergites without median darkening; tergites two to six, inclusive, with a conspicuous dark brown spot, on tergite two at near midlength, on the others near the base of segment; hypopygium more castaneous. Ovipositor with cerci relatively deep and compressed, the tips obtuse. Male hypopygium with the ninth tergite very broad, its caudal margin with a correspondingly widened median notch, the margin of which is microscopically toothed, these denticles larger and more conspicuous on the sides of the emargination; caudal border at base of notch with conspicuous black setae; lateral lobes correspondingly reduced, each terminating in a small, irregular flange or point. Ninth sternite with the appendage relatively small, its lower portion very obtuse to subtruncate, provided with long, conspicuous yellow setae. Basistyle entire, produced into a strong lobe or arm that is separated from most of style by pale membrane, the arm terminating in a weakly bifid point including one more spinous flange; surface of arm with several strong setae. Outer dististyle reduced to a tiny lobe. Inner dististyle relatively large and conspicuous; beak blackened, slightly uptilted at apex; lower beak similarly darkened; separated from the beak by a narrow notch; dorsal crest separated from the beak by a strong constriction; outer basal lobe relatively small, not as large as the dorsal crest, its outer portion with unusually long dense setae; sensory area comprised of about 18 facets. Gonapophysis appearing as simple, relatively small, straight spines. Eighth sternite sheathing, more narrowed outwardly; apex emarginate, on either side with a low lobe or cushion that bears long conspicuous yellow setae.

*Habitat*: California (Mariposa County).

*Holotype*: ♂, Mirror Lake, Yosemite National Park, altitude 4000 feet, June 6, 1939 (A. Downes). *Allotopotype*: ♀, pinned with type. *Paratopotypes*: 4 ♂ ♂.

The specific name, *tenaya*, is that of the chief of the Yosemite Miwok Indians at the time of the discovery of the valley by the Whites, in March, 1851. The fly is most nearly related to *Tipula* (*Lunatipula*) *miwok* Alexander and T. (*L.*) *splendens* Doane, particularly to the latter. It differs conspicuously in all details of structure of the male hypopygium, particularly of the tergite, basistyle and inner dististyle.

***Tipula* (*Lunatipula*) *bernardinensis* n. sp.**

Allied to *splendens*; size small (wing, male, 11 mm.); general coloration of thorax and abdomen yellow, abdominal tergites two to five with conspicuous, oval, dark brown, lateral spots; wings with a weak brownish tinge, the prearcular and costal fields more yellowed, stigma medium brown; male hypopygium with the

caudal margin of tergite broadly emarginate; lateral lobes relatively narrow; each with a tridentate sclerotized flange near apex; other smaller denticles nearer midline of tergite; basistyle produced into a slender, acutely pointed spine; inner dististyle simple, arcuate, the beak relatively stout and sloping gradually back to the dorsal crest, the outer basal lobe not developed; eighth sternite with the setiferous area relatively small, the setae yellow, those elsewhere on sclerite black.

*Male.* Length about 12 mm.; wing 11 mm.; antenna about 3.1 mm.

Frontal prolongation of head relatively long, subequal to the remainder, shiny yellow, dusted above at base with light grey; nasus long and slender; palpi with basal three segments obscure yellow, the terminal segment blackened. Antennae with basal three segments light yellow, the apex of first flagellar segment weakly darkened; remainder of organ brownish black, the basal enlargement a very little more intense; flagellar segments weakly incised; longest verticils shorter than the segments. Head above light grey, with a capillary darker median vitta.

Prothorax and mesothorax almost uniformly reddish yellow, very sparsely pruinose, without clearly defined markings, excepting the broad central area of praescutum and centers of the scutal lobes that are clearer reddish, without pruinosity; dorsopleural membrane light yellow. Halteres with stem light brown, its base narrowly light yellow, knob infuscated. Legs with coxae yellow, very sparsely whitened; trochanters yellow; femora, tibiae and basitarsi obscure yellow, the tips scarcely darker; outer tarsal segments brownish black; claws (male) toothed. Wings with a weak brownish tinge, the prearcular and costal fields more yellowed; stigma medium brown; veins dark brown. Venation: *Rs* about three times as long as *m-cu*, cell *M*<sub>4</sub> not widened at the latter vein.

Abdomen chiefly yellow, tergites two to five, inclusive, with conspicuous oval dark brown spots on the sublateral portions, placed near base of segments except the first which is near midlength; lateral and caudal borders of tergites narrowly pale; sternites and hypopygium yellow. Male hypopygium with the caudal margin of the ninth tergite broadly emarginate, the lateral lobes relatively narrow, each at apex extended into a narrow point; on margin of lower face with a tridentate sclerotized flange; central portion of emargination with other denticles, with a more sclerotized ventral point that is directed mesad; median line of dorsal surface pale and more membranous. Ninth sternite with the appendage relatively large, its upper portion pale, the slightly more narrowed lower end somewhat more sclerotized, with the setae long and strongly reflexed. Basistyle entire, produced into a long slender spine, its tip acute, the setae restricted to the proximal half or slightly more; a membranous area near base of spine. Outer dististyle small, spatulate. Inner dististyle simple, arcuate, narrowed to the beak, the latter relatively stout and sloping gradually back to the dorsal crest; lateral face of beak with a narrow blackened carina that extends back about to opposite the small conical lower beak; surface of style with a long narrow sclerotized flange; main body of style with all setae directed strongly backward; outer basal lobe not developed. Eighth sternite sheathing; caudal margin truncate or slightly convex, with a relatively small central setiferous area, the long setae yellow, those toward the midline somewhat shorter; setae of remainder of sclerite black, some on the outer apical margin longer and more conspicuous.

*Habitat:* California (Riverside County).

*Holotype:* ♀, Idyllwild, altitude 5400 feet, June 15, 1940 (C. D. Michener).

The present fly is allied to various other small species that center around *Tipula* (*Lunatipula*) *splendens* Doane, including besides the latter *T. (L.) miwok* Alexander, *T. (L.) pleuracicola* Alexander (*arizonica* Alexander) and *T. (L.) tenaya* n. sp. The most similar of these allied forms is *pleuracicola* which differs most evidently in details of structure of the male hypopygium, including the tergite, inner dististyle and eighth sternite.