

UNDESCRIBED CRANE-FLIES IN THE PARIS MUSEUM

(TIPULIDAE, DIPTERA):

PART III

(Continued).

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Tipula bifida nov. sp.

General coloration grey; mesonotal praescutum with four brown stripes; antennae of male short, basal segments yellowish; tips of femora and tibiae dark brown, claws of male toothed; wings pale grey, marmorate with brown and subhyaline; tip of R_2 persistent; male hypopygium with the ninth tergite completely bisected medially; ninth pleurite with a conspicuous black spine; eighth sternite unarmed.

Male. — Length about 14 mm.; wing, 17.5 mm.

Frontal prolongation of head pale brownish yellow; palpi brown. Antennae of male short; scape and basal flagellar segments uniformly brownish yellow, the terminal flagellar segments darkened; first scapal segment elongate; first flagellar segment shorter than the combined second and third. Head light fawn-yellow, the center of the vertex faintly infuscated.

Mesonotal praescutum light grey with four brown stripes, the intermediate pair separated by a capillary line; remainder of mesonotum light grey, the scutal lobes and a median line on mesonotum brown. Pleura light grey. Mesosternum slightly darker. Halteres brown, the knobs darker brown, their apices broadly whitish. Legs with the coxae obscure yellowish buff; trochanters yellow; femora brownish yellow, the tips broadly dark brown; tibiae light brown, the tips broadly infuscated; remainder of legs brown; metatarsi longer than tibiae; tarsal claws of male with basal tooth. Wings pale grey, marmorate with brown and subhyaline; cell *C* brownish yellow, darkest basally; cell *Sc* brown; conspicuous brown; clouds in the base of cells *R* and *M*, at origin of R_s , at stigma and surrounding the fork of R_s ; the subhyaline areas include a large

blotch in the basal cells beyond the brown area: an area between the origin of *Rs* and the stigma; an interrupted obliterative band beyond the cord, extending from beyond the stigma across cells *R*₂, *R*₃, *R*₅, 1st *M*₂ into the bases of cells *M*₄ and *Cu*₁; base and apex of cell 2nd *A* subhyaline. Venation: *R*₂ persistent; petiole of cell *M*₁ shorter than *m*; basal section of *M*₃₊₄ about one-half shorter than second section.

Abdomen discolored in type, apparently brown with the sternites paler. Male hypopygium with the ninth sternite and tergite fused into an almost complete ring, the suture between them indicated only caudally; ninth pleurite complete. Ninth tergite completely divided medially by a profound incision, each half with the caudal margin broadly truncated or feebly concave, on the ventro-proximal angle produced ventrad and caudad into a blackened lobe whose oblique apex is provided with microscopic teeth; the dorsal, proximal margin of each tergal half, is provided with an area covered with yellow setae that are decussate across the median incision. Ninth pleurite complete, suboval in outline, the apex produced caudad, dorsad and slightly proximad into a powerful, black spine. Outer pleural appendage clavate, narrow at base, the elongate club pale, covered with abundant setae; inner pleural appendage complex, the chitinized beak jutting into the median split of the tergite. Ninth sternite with a membranous median lobe subtended on either side by a rounded setiferous knob which is separated from the pleura by the pleural suture. Dorsad of the ninth sternite juts caudad the powerful penis-guard, broad-based, narrowed to the acute apex, viewed from the side, broad with an apical and a subapical tooth. Eighth sternite unarmed.

Habitat. — China.

Holotype, ♂, Kouy-Tchéou, gan Chouen, September 1913 (Père Cavalerie).

Type in the Collection of the Paris Museum.

Tipula percara nov. sp.

General coloration light grey; basal segments of antennae yellow, the terminal segments bicolorous; halteres obscure yellow; legs brownish yellow, the tips of the femora and tibiae darkened; wings with a faint yellowish tinge, variegated with brown, the base and costal margin broadly bright yellow.

Female. — Length 12,6 mm.; wing 12,3 mm.

Frontal prolongation of head rather long, ashy-grey above, dark brown laterally; nasus long. Antennae with the scape and basal three or four flagellar segments yellow; terminal flagellar segments bicolorous, the base

of each being infuscated. Head light grey with a very delicate brown median line that is interrupted behind the vertical tubercle.

Mesonotum light grey, the brown praescutal stripes barely indicated, the intermediate one more distinct and split longitudinally by a pale line; scutal lobes marked with darker. Pleura light grey, the dorso-pleural membranes obscure yellow. Halteres obscure yellow. Legs with the coxae light grey pruinose; trochanters and femora obscure yellow, the tips of the latter broadly dark brown; tibiae light brownish yellow, the tips rather narrowly darkened; tarsi dark brown, the metatarsi paler. Wings with a faint yellowish tinge, the costal margin and the wing-base bright yellow; stigma dark brown; brown seams at origin of *Rs*, along the cord, broadest at *r-m*, and along the fork of *Cu*; wingtip in cells *R*₂, *R*₃; *R*₅ and 1st *A* faintly darkened; area behind vein *Cu* obscure yellow variegated with a brown blotch near midlength; veins brown, yellow in the flavous areas. Venation: *Sc* long, *Sc*₂ ending immediately before the fork of *Rs*; *Rs* gently arcuated basally; *r* about as long as *m*; petiole of cell *M*₁ more than one-half *R*₂₊₃; *m-cu* obliterated.

Abdomen obscure yellow, darker areas showing through but these apparently caused by eggs within the body; sternites infuscated medially. Ovipositor with the tergal valves long and slender; sternal valves short and broad.

Habitat. — China.

Holotype, ♀, Kouy-Tchéou, gan Chouen, September 1913 (Père Cavalerie).

Type in the Collection of the Paris Museum.

Tipula percara is most closely related to the Japanese *T. flavocostalis* Alexander, differing in the details of coloration and wing venation, as the longer *Sc*, the large cell 1st *M*₂ the lack of the *m-cu* crossvein and other characters.

GENUS *Nephrotoma* Meigen.

Nephrotoma erebus nov. sp.

General coloration black; wings pale yellowish subhyalins, stigma brown; a brown cloud along *r-m*; veins dark brown.

Male. — Length 12 mm.; wing, 9-9,4 mm.

Female. — Length 15 mm.; wing, 11,2 mm.

Frontal prolongation of head black; palpi brownish black. Antennae of moderate length, black throughout; flagellar segments in male only slightly enlarged basally. Head black.

Mesonotum black, only the extreme humeral regions obscure yellowish brown. Pleura black, the dorso-pleural membranes brownish. Halteres

black, the apices of the knobs paler, yellowish brown. Legs black, the coxae slightly pruinose; in some specimens the femora are paler, the tibiae brighter brown with the bases and tips narrowly darkened. Wings pale yellowish subhyaline, the subcostal cell clearer yellow; stigma oval, dark brown; a brown seam along the cord, extending to cell 1st M_2 ; veins brown. Venation: R_s arcuated, a little longer than the basal deflection of R_{4+5} ; cell M_1 sessible; $m-cu$ obliterated.

Abdomen black, the extreme caudal margins of sternites four to six yellowish. Male hypopygium with the outer pleural appendage attenuated, brown. Ovipositor with the valves reddish horn-color.

Habitat. — Mongolia.

Holotype, ♂, Vallée de l'Orkhon, July 1909 (Dr. du Chazaud).

Allotype, ♀, Vallée près de la Kouré de Bandie, altitude 1500 meters, July 1909 (Dr. du Chazaud).

Paratopotypes, 2 ♂'s; paratypes, 2 broken ♂'s, without exact data, July, August, 1909 (Dr. du Chazaud), Mission de Lacoste.

Type in the Collection of the Paris Museum.