

New Exotic Crane-Flies (Tipulidae: Diptera). Part I

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In the present series of papers I am describing new species of extra-North American crane-flies. The materials considered at this time are from Argentina, Chile and Peru, having been received from colleagues, including Schachovskoy in Argentina, and Peña in Chile. The very interesting fly from Peru was sent to me by my long-time friend and fellow worker on the Tipulidae, Dr. Bernhard Mannheims, of Bonn, Germany. I am very greatly indebted to these friends for this small series of crane-flies.

Austrolimnophila (Austrolimnophila) mannheimsi new species

Size medium (wing of male over 11 mm.); mesonotal praescutum brownish yellow with an intermediate pair of darker brown stripes; pleura yellow with small dark spots; legs dark brown; wings obscure yellow, with abundant brown dots in all cells.

♂. Length about 12 mm.; wing 11.5 mm.; antenna about 2.5 mm.

Described from an alcoholic specimen. Rostrum light yellow; palpi brown, the first segment yellow. Antennae relatively short; basal three segments yellow, the remainder light brown; segments subcylindrical, the intermediate ones subequal in length to their verticils. Head dark brown.

Pronotum narrowly darkened medially, broadly yellow on the sides. Mesonotal praescutum brownish yellow with a pair of darker brown intermediate stripes, the usual lateral pair lacking; scutal lobes conspicuously infuscated, central area yellow; posterior sclerites of notum light brown, the katapleurotergite darker. Pleura yellow, with small dark spots above the mid-

¹ Contribution from the Entomological Laboratory, University of Massachusetts.

coxae and on the meron. Halteres elongate, medium brown, base of stem restrictedly pale. Legs with coxae and trochanters yellow; remainder of legs dark brown. Wings with the ground obscure yellow, the entire surface with abundant brown dots in all cells and virtually equal in size throughout; a slightly larger concentration on the anterior cord; veins slightly darker brown. Venation: R_{2+3+4} longer than the basal section of R_5 ; R_s long, cell M_1 deep, its petiole shorter than m ; $m-cu$ at near one-third the length of M_{3+4} ; weak secondary veins behind both Anal veins, as frequent in the genus.

Abdominal tergites brown, the transverse basal impressions pale; sternites weakly bicolored, yellow, patterned with pale brown basally and on sides, in cases virtually crossing the sternites to form a band; hypopygium brownish yellow. Male hypopygium with the tergite transverse, the posterior border virtually truncate, the median part a very little produced and provided with a fringe of long conspicuous setae; proctiger large and membranous, pale. Basistyle narrowed outwardly, on ventral face near base with a large subtriangular darkened lobe, its apex subtruncate. Outer dististyle longer, appearing as a gently curved rod, provided with setae, the outer apical angle produced into a slender black spine; inner style a little shorter, very gently curved, tip narrowly obtuse. Gonapophysis appearing as a flattened plate, the posterior lateral angle produced into a slender spine that is directed caudad.

Habitat. PERU. *Holotype*: alcoholic ♂, Hacienda Udimá, near Taulis, circa 6°50'S. Lat., 79°10'W. Long., in mountain forest, 1,600–2,200 meters; end of December 1952 (leg. H. W. Koepcke), No. 6949; Museum Alexander Koenig, Bonn, Germany.

This interesting fly was sent to me by my long-time friend and co-worker on the Tipulidae, Dr. Bernhard Mannheims, of Bonn, to whom the species is dedicated. There are several allied species in the Chilean Subregion, including *Austrolimnophila* (*Austrolimnophila*) *bradleyi* Alexander, *A. (A.) martinezi* Alexander, *A. (A.) merklei* Alexander, *A. (A.) nahuelicola* Alexander, and *A. (A.) tunguraguensis* Alexander, all with

somewhat similarly dotted and spotted wings, all separable among themselves by the coloration, wing pattern and venation, and especially in the structure of the male hypopygium.

Gynoplistia schachovskoyana new species

Size large (wing over 20 mm.) abdomen very long; antennae 19-segmented, with eleven branched segments; femora yellowish brown, paler apically, enclosing a narrow brown subterminal ring; wings subhyaline, conspicuously spotted and dotted with brown.

♂. Length about 30 mm.; wing 22 mm.; abdomen alone 25 mm.

♀. Length about 33 mm.; wing 21.5 mm.; abdomen alone 27 mm.

Rostrum brown; palpi brownish black. Antennae moderately long, dark brown to brownish black, the incisures of the more proximal flagellar segments paler; 19-segmented, the formula $2 + 2 + 9 + 6$, in both sexes; branches in male only a little longer than in the female, the longest slightly more than one-third the entire organ; terminal segment elongate, about one-half longer than the penultimate. Head dark brown, flecked with brownish yellow, the vertex and genae beneath extensively gray pruinose, especially distinct as a central line on the posterior vertex.

Pronotal scutum whitish yellow, patterned with dark brown, the scutellum more uniformly horn-yellow with a whitish spot on either side. Mesonotal praescutum with the ground brownish yellow, pollinose, with three brown stripes, the median one divided by a narrow black vitta that extends about to three-fourths the length of the sclerite; lateral praescutal borders more fulvous, more or less pruinose; pseudosutural foveae large, pale brown; posterior sclerites of notum chiefly white pruinose, with a more or less distinct darker central vitta, most evident on the mediotergite and apparently not caused by rubbing. Pleura dark brown above, including the dorsopleural region, paler surrounding the anterior spiracle; ventral half paler brown with

a conspicuous silvery stripe, most evident from the fore coxa across the dorsal sternopleurite to the base of abdomen; a dark spot above the hind coxa on metepisternum. Halteres with stem white, knob infuscated. Legs with coxae dark brown, heavily pruinose; trochanters brownish yellow; femora yellowish brown, paler apically, before tip with a narrow brown ring; tibiae yellowish brown, the tips broadly infuscated; tarsi brown, the outer segments brownish black. Wings with the ground subhyaline, the outer cubital and anal cells weakly infuscated; a conspicuous brown spotted and dotted pattern, including major areas in the radial field, particularly in *R* and bases of the outer radial cells; stigma brownish yellow, variegated by brown markings; abundant smaller dots in costal field and more scattered in cells *M* and *Cu*; larger clouds in cell *1st A* at near two-thirds the length and in *2nd A* at midlength; other narrow seams at outer end of cell *1st M₂*, fork of *M₁₊₂*, base of vein *2nd A*, and less evidently along the posterior margin; veins brown. Venation: *R₂₊₃₊₄* one-half the basal section of *R₅* or a little longer; cell *M₁* approximately three times its petiole.

Abdomen very long in both sexes, as shown by the measurements; brownish gray to brown, the lateral tergal border with a narrow dark brown line that is only slightly interrupted on the basal rings; hypopygium small.

Habitat. ARGENTINA. *Holotype:* ♂, Lago Lacar, Neuquen, 650 meters, January 22, 1954 (S. S. Schachovskoy). *Allotopotype:* ♀, January 12, 1954.

I take pleasure in naming this striking fly for the collector, Mr. Serge S. Schachovskoy, to whom I am indebted for many interesting crane-flies from Neuquen. The large size, very long abdomen, and conspicuously patterned wings readily distinguish the species from all known relatives. The smaller *Gynoplistia pictipennis* (Philippi) likewise has patterned wings but is entirely distinct.

Molophilus (Molophilus) pastoris new species

Belongs to the *plagiatus* group; mesonotal praescutum and scutum light brown, the postnotum and pleura dark brown; male

hypopygium with the basal dististyle an unusually long simple blackened rod, with nearly the outer half strongly curved and narrowed; phallosome a setiferous cushion, its apex shallowly emarginate.

♂. Length about 3.7 mm.; wing 4.5 mm.; antenna about 1.3 mm.

Rostrum and palpi black. Antennae of male moderately long, as shown by the measurements; basal segments obscure yellow or brownish yellow, the outer flagellar segments more darkened; flagellar segments oval to long-oval, with long conspicuous verticils and erect pubescence. Head dark brownish gray.

Pronotum dark brown, the scutellum and pretergites testaceous yellow. Mesonotal praescutum, scutum and scutellum light brown, the humeri more reddened; postnotum and pleura dark brown. Halteres pale yellow. Legs with coxae and trochanters yellow; femora yellowish brown to light brown, tibiae and tarsi darker brown; subbasal ring of fore tibia more blackened, conspicuous. Wings tinged with grayish yellow, the prearcular and costal fields clearer yellow; veins dark yellow; macrotrichia brown. Venation: R_2 lying a short distance beyond the level of $r-m$; petiole of cell M_3 relatively short, only a little longer than $m-cu$; vein $2nd\ A$ only gently sinuous.

Abdomen dark brown, the hypopygium a very little brighter. Male hypopygium with the beak of the basistyle slender, acute at tip. Outer dististyle with the stem slender, the arms very unequal; basal style an unusually long simple blackened rod, with more than the basal half stout, the more slender outer part strongly curved, terminating in a long black spine. The structure suggests a shepherd's crook, whence the specific name. Phallosome a setiferous cushion, the apex rather shallowly emarginate.

Habitat. CHILE. *Holotype:* ♂, Aucar, Chiloe Island, January 6-15, 1952 (Luis E. Peña).

Molophilus (Molophilus) pastoris is most similar to species such as *M. (M.) fagatorium* Alexander, *M. (M.) rubidithorax* Alexander, and others, differing especially in the structure of the male hypopygium, particularly the basal dististyle.

Molophilus (Molophilus) stenorhabda new species

Belongs to the *plagiatus* group; mesonotum chiefly reddish yellow, the postnotum and pleura slightly darker; halteres pale yellow; male hypopygium with the beak of the basistyle very slender; basal dististyle an unusually long and slender simple rod, narrowed to the acute tip; phallosome a setiferous cushion, its outer end deeply emarginate.

♂. Length about 3.5 mm.; wing 4 mm.

♀. Length about 3.8 mm.; wing 4 mm.

Rostrum brown; palpi black. Antennae dark brown, of moderate length, if bent backward extending approximately to the root of the halteres. Head dark brownish gray.

Pronotum testaceous. Mesonotum chiefly reddish yellow, the praescutum somewhat more darkened medially in front; postnotum and dorsal pleura slightly darker. Halteres pale yellow. Legs with the coxae and trochanters yellow; remainder of legs obscure yellow, the color more obscured by dark setae. Wings weakly darkened, the prearcular and costal fields more yellowed; veins yellow, brighter in the yellowed portions. Venation: R_2 lying just beyond level of *r-m*; petiole of cell M_3 about one-fourth longer than *m-cu*; vein 2nd *A* only moderately sinuous, ending about opposite the anterior end of *m-cu*.

Abdomen dark brown, hypopygium yellow. Male hypopygium with the beak of the basistyle very slender, acute at tip. Outer dististyle with the arms very unequal, the inner one slender; basal style an unusually long and slender simple rod, blackened, narrowed to the acute tip. Phallosome a setiferous cushion, its outer end deeply emarginate, the notch about twice as broad as either lobe, the longest setae on the lobes.

Habitat. CHILE. *Holotype*: ♂, Rio Coluco, Chiloe Island, January 30, 1952 (Luis E. Peña). *Allotopotype*: ♀, pinned with type. *Paratopotype*: ♀, pinned with type.

In its general appearance and structure of the male hypopygium, the present fly is most similar to *Molophilus (Molophilus) rubidithorax excavatus* Alexander, differing especially in the structure of the male hypopygium, particularly the unusually attenuated basal dististyle.