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NEW OR INSUFFICIENTLY-KNOWN CRANE-FLIES FROM THE NEARCTIC REGION (DIPTERA, TIPULIDAE) PART XIII¹

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The preceding part under this general title was published in April, 1950 (Bull. Brooklyn Ent. Soc., 45: 41–47). In this part a slight typographical error appeared when the galley proof was transferred to page proof. The last three lines on page 44 should appear under the genus *Dactylolabis* on the succeeding page. The flies herewith discussed are from Oregon, California and Arizona, as discussed under the individual species. Except where noted to the contrary, the types are preserved in my collection.

Tipula (Lunatipula) dido malheurensis n. subsp.

Close to the typical form (Barton Flats, San Bernardino Mountains, California, altitude 6,300 feet, July 16, 1946, collected by Alexander and Sperry), differing in slight details of coloration.

Costal border of wing and a conspicuous seam over veins Cu and m-cu brown; cell M, posterior border of R, and bases of Anal cells paler than the wing tip or the posterior border; obliterative band at cord wider and more conspicuous against its blackened ground than is the case in the typical form.

In both races, the male hypopygium shows the phallosome with three pairs of plates; upper plate broad, at apex extended into a point; longest plate bearing a sharp spine on its upper margin, thence united to form a single prow-shaped structure, the lower edge with a small erect spine. Lower pair of plates long and slender, unequally forked at apex, the terminal spine longer and more slender; base of plate extended into a lobe. In *malheurensis*, the central prow-shaped structure is more slender, with the various spines and points weaker. Lower plate slender, not produced into a conspicuous lobe at base, the two outer spines more nearly equal in size.

Habitat: Oregon (Grant County).

Holotype: 3, Beech Creek Forest Camp, Malheur National Forest, altitude 4,500 feet, August 16, 1948 (C. P. Alexander). Allotopotype, a broken \mathfrak{P} , with the type.

¹ Contribution from the Department of Entomology, University of Massachusetts.

Erioptera (Empeda) gloydae n. sp.

Mesonotum reddish, sparsely pruinose, more heavily so on the sides; wings grayish yellow, the costal field clearer yellow; male hypopygium with the outer dististyle profoundly bifid, the outer arm a narrow simple blade, the inner arm a little shorter, unequally split at tip, the upper point narrower and more acute than the lower one; inner dististyle a simple parallel-sided blade, the tip obtuse.

Female: Length about 3.5 mm.; wing 3.7 mm.

Rostrum brownish yellow; palpi light brown. Antennae dark brown, the enlarged scape and pedicel somewhat paler. Head clear light gray.

Pronotum and pretergites yellow, clearest laterally. Mesonotal praescutum and scutum reddish with a gray pruinosity, heavier on the sides; scutellum gray at base, the posterior border broadly reddish; mediotergite with central portion weakly darkened, the sides more reddened. Pleura reddish yellow, sparsely pruinose. Halteres obscure yellow. Legs obscure yellow, the outer tarsal segments more darkened. Wings grayish yellow, the prearcular and costal fields clearer yellow; veins yellowish brown, clearer yellow in the brightened fields. Venation: Sc_1 ending just beyond onethird the length of Rs, Sc_2 some distance from its tip; vein R_3 relatively long, nearly equal to R_{2+3+4} and R_{3+4} combined; cell M_2 open; m-cu close to fork of M.

Abdomen reddish brown. Ovipositor with the cerci horn-yellow. Male hypopygium with the outer dististyle profoundly bifid, the outer arm a narrow simple blade, the inner arm a little shorter, unequally split at tip, the upper point narrower and more acute than the lower one. Inner dististyle a simple parallel-sided blade, its tip obtuse.

Habitat: Arizona (Cochise County).

Holotype: a fragmentary δ , without wings, Ramsey Canyon, Huachuca Mountains, July 11, 1931 (L. K. Gloyd); Zoological Museum, University of Michigan. Allotopotype: \mathfrak{P} , with the type.

This interesting species is named for Mrs. L. K. Gloyd, student of the Odonata, who collected several interesting Tipulidae in the southwestern states in 1931. Although the type male is a mere fragment, it is certainly conspecific with the better preserved female and shows the hypopygial characters that separate it from all other regional species, including *Erioptera* (*Empeda*) cinereipleura Alexander and E. (E.) perflavens Alexander.

Tasiocera (Dasymolophilus) miseranda n. sp.

Size small (wing, male, about 3 mm.); general coloration of body brownish black; wings with sparse macrotrichia in outer ends of distal radial cells; male hypopygium with the dististyle very slender, especially the spinous outer half, the surface of style virtually smooth; phallosomic structure very short and compact, with relatively few spinous points.

Male: Length about 2.5-2.6 mm.; wing 3-3.2 mm.

Rostrum and palpi brown. Antennae black throughout. Head brownish black.

Thorax uniformly brownish black, the surface vaguely pruinose. Legs with the coxae and trochanters dark brown; remainder of legs obscure brownish yellow. Wings with a strong dusky tinge, uniform from base to apex; veins darker brown. Rows of macrotrichia in distal ends of the outer radial cells, especially R_2 and R_3 . Venation: R_2 and R_{2+3} in transverse alignment, subequal to R_{4+5} , the latter in alignment with R_4 ; basal section of R_5 and r-m in transverse alignment, both lying distad of the level of R_{2+3} ; base of vein M_{1+2} atrophied, lying in the pale obliterative streak in cell M; cell Cu slightly narrowed just before its outer end; vein 2nd A short, the cell narrow.

Abdomen brownish black. Male hypopygium with the dististyle terminal in position, very slender, especially the spinous outer half; surface of style nearly smooth or with very vague indications of a few scattered tubercles on outer margin of distal half. Phallosomic structure very short and compact, with relatively few spinous points. Aedeagus relatively stout, the acute apex blackened.

Habitat: Western Oregon.

Holotype: J., High Heaven, Yamhill County, May 4, 1947 (Kenneth M. Fender). Paratypes: JJ, Sourgrass Creek, Gunaldo Falls, Yamhill County, May 17, 1948 (Fender); Tierra del Mar, Tillamook County, May 13, 1949 (Fender).

The most similar described species is Tasiocera (Dasymolophilus) subnuda (Alexander), of California, which differs particularly in the structure of the male hypopygium, including the dististyle, phallosomic structure and aedeagus. Both species are figured in the Tipuloidea of Oregon, which should appear in press in the American Midland Naturalist in due course. The present fly is only one of the noteworthy Tipulidae discovered in Oregon by Kenneth Mark Fender, to whom our knowledge of the Oregon species is chiefly due.

Cryptolabis (Cryptolabis) brachyphallus n. sp.

Mesonotum brown, the lateral borders narrowly pale yellow; pleura dark brown, striped longitudinally with yellow; femora and tibiae yellow, the tips narrowly infuscated; wings whitish subhyaline, unpatterned; male hypopygium with the dististyle relatively stout, unequally bidentate at apex, the axial arm stoutest, terminating in a short point; aedeagus relatively short and stout.

Male: Length about 3.5 mm.; wing 4 mm.

Female: Length about 3.5 mm.; wing 4 mm.

Rostrum obscure yellow; palpi brown. Antennae black throughout; flagellar segments oval, shorter than the verticils. Head light fulvous.

Pronotum and pretergites pale yellow. Mesonotum chiefly light to darker brown, the lateral borders narrowly pale yellow, the latter including a continuous dorsal stripe passing through the wing root. Pleura dark brown, with a paler longitudinal stripe. Halteres pale. Legs with the coxae and trochanters yellow; femora and tibiae yellow, the tips narrowly infuscated; tarsi dark brown to brownish black. Wings whitish subhyaline, unpatterned; veins dark brown. Macrotrichia relatively sparse, restricted to the distal half or less of the outer wing cells. Venation: Rs relatively short, sinuous; R_2 more or less angulated or sinuous at near midlength; m-cu on M_4 some distance beyond the origin of the latter.

Abdomen dark brown. Male hypopygium with the dististyle relatively stout, unequally bidentate at tip, the outer or axial arm stoutest, not produced, terminating in a short point; second arm a relatively slender spine; outer half of style with relatively few scattered setae. Aedeagus short and stout, more or less constricted at near midlength, the surface appearing corrugated by transverse rows of microscopic spinulae.

Habitat: California (San Diego County).

Holotype: ♂, Tub Canyon, Borego, March 1, 1947 (John L. Sperry). Allotopotype: ♀ (Noël Crickmer). Paratopotype: 1♀, pinned with type.

Among the regional species having the male hypopygium most like that of the present fly are *Cryptolabis* (*Cryptolabis*) mixta Alexander and C. (C.) sica Alexander, both of which differ in all details of structure, particularly of the dististyle.

Cryptolabis (Cryptolabis) retrorsa n. sp.

Male: Length about 3-3.5 mm.; wing 3.8-4.2 mm. Female: Length about 3-3.5 mm.; wing 3.5-3.8 mm.

Generally similar to *bisinuata*, differing especially in the structure of the male hypopygium.

Wings whitish subhyaline, paler at base; cord and vein Cu vaguely seamed with slightly darker, this color including the veins; remaining veins brown, those of the prearcular field pale. Macrotrichia of cells of male relatively sparse, restricted to the cells beyond the cord, more numerous in the outer ends of cells; in female, the trichia still more restricted. Venation: Rs steep, sinuous; m-cu on M_{3+4} a short distance before the fork.

Male hypopygium with the inner lobe of the basistyle unusually small and slender, with relatively few setae, there being only about five or six at apex; some setae of main body of style near apex very long. Dististyle elongate, simple, terminating in a small blackened point, near outer margin back from the apex with two unusually long setae, these directed backward, on mid-third of style with other normal erect setae. Aedeagus relatively stout but long, transversely corrugated, gradually narrowed outwardly.

Habitat: California, Oregon.

Holotype: 3, Crescent City, Del Norte County, California, August 5, 1940 (H. and M. Townes). Allotopotype: Q. Paratypes: Numerous specimens of both sexes, Siskiyou Mountains, Josephine County, Oregon; swept from low shrubs along the Illinois River at Store Gulch Camp, Siskiyou National Forest, 950 feet, August 9, 1948 (Alexander and Fender).

Readily told from other regional species, including *Cryptolabis* (*Cryptolabis*) bisinuata Doane, by the structure of the male hypopygium, as described.