Undescribed Species of Crane-Flies from the Western United States and Canada (Dipt.: Tipulidae) Part XIII

By Charles P. Alexander, University of Massachusetts, Amherst, Massachusetts

The preceding part under this general title was published in Entomological News 61: 29–35, 1950. In the present report I am describing a few Eriopterine species from Colorado, California, Oregon, British Columbia, and Alberta, collected by myself and by my good friend, Kenneth M. Fender, to whom I express my deep appreciation for invaluable cooperation in the past. The types of the novelties are preserved in my collection of these flies.

Neolimnophila brevissima new species

General coloration gray, the praescutum with two narrow intermediate brown stripes, the lateral pair not or scarcely indicated; wings subhyaline, the large oval stigma pale brown, conspicuous; cells C and Sc a trifle darkened; vein R_{3+4} unusually long, about twice as long as vein R_3 and nearly equal to vein R_4 ; m-cu from two-fifths to about one-half its length beyond the fork of M.

9. Length about 8 mm.; wing 9 mm.

Rostrum gray; palpi black. Antennae black throughout, the basal three segments very sparsely pruinose. Head light gray, the posterior vertex very faintly tinged with brown.

Pronotum pruinose. Mesonotum grayish pruinose, the praescutum with two narrow intermediate brown stripes, the lateral pair not or barely indicated; tuberculate pits black, occupying the darkened stripes. Pleura gray, the dorsopleural region more buffy yellow. Halteres with stem whitened, the knob a trifle darkened. Legs with the coxae gray pruinose; trochanters obscure yellow; remainder of legs brownish black. Wings subhyaline, the large oval stigma pale brown, conspicuous,

much more so than in related species; a longitudinal dusky seam behind vein Cu, cells C and Sc a trifle more brownish yellow than the ground; veins brown, more yellowed in the prearcular field. Venation: Sc_2 at extreme tip of Sc_1 ; R_{2+3+4} strongly arcuated at origin; R_{3+4} unusually long, about twice R_3 alone and nearly as long as vein R_4 ; m-cu about two-fifths to one-half its length beyond the fork of M.

Abdomen uniformly dark brown. Ovipositor with cerci slender, only gently upcurved.

Habitat. Colorado. Holotype: Q, Rabbits Ears Pass, at Columbine Lodge, altitude 9,620 feet, August 23, 1946 (C. P. Alexander).

Although a single specimen is available I must regard this fly as being distinct from the other Nearctic species and subspecies of the genus. The unusually small cell R_3 is not approached by any of the numerous specimens of Neolimnophila ultima (Osten Sacken) that I have seen. In the eastern Palaearctic region, other species, as N. perreducta Alexander show this extreme reduction in the size of this cell but are otherwise quite distinct.

Erioptera (Gonomyodes) yohoensis new species

General coloration of thorax light to darker brown, head dark gray; wings subhyaline, unpatterned; Sc_1 long, nearly two-thirds Rs; cell R_3 very deep, R_2 subequal to or longer than R_{3+4} ; m-cu at or near midlength of cell $1st\ M_2$; male hypopygium with the outer dististyle a straight black rod that terminates in two subequal acute spines; phallosome narrow, without distinct lateral shoulders.

- 3. Length about 4.3-4.5 mm.; wing 5.2-5.5 mm.
- Q. Length about 4.5-5 mm.; wing 5.3-5.5 mm.

Rostrum brown; palpi brownish black. Antennae black throughout; flagellar segments oval, the verticils exceeding the segments. Head dark gray.

Thorax varying from uniform light brown or yellowish brown to darker grayish brown, the praescutum still darker medially.

Halteres pale. Legs with the coxae ochreous; trochanters yellow; remainder of legs light brown, the outer tarsal segments blackened. Wings subhyaline, unpatterned; veins a little darker than the ground. Venation: Sc_1 ending beyond fork of Rs, Sc_2 about opposite midlength of that vein, Sc_1 thus very long, nearly two-thirds Rs; cell R_3 very deep, vein R_4 being only a little shorter than the outer section of M_{1+2} ; vein R_2 subequal to or longer than R_{3+4} ; m-cu at or near midlength of cell 1st M_2 .

Abdomen dark brown, the basal sternites obscure yellow; hypopygium yellow. Male hypopygium with the two outer dististyles subequal in length, the outermost distinctive in conformation, appearing as a stout black rod that terminates in two subequal acute spines; intermediate style a little dilated on outer half, the apex produced into a flange and extended into a beak, forming a more or less evident saucer-shaped depression at end. Phallosome narrow, without conspicuous lateral shoulders, setiferous.

Habitat. Alberta, British Columbia. Holotype: 3. Kicking Horse Pass, along the Kicking Horse River exactly at the border between Alberta and British Columbia, altitude 5,350 feet, July 18, 1949 (C. P. Alexander). Allotopotype: 9, pinned with type. Paratopotypes: Numerous specimens of both sexes, some unmounted, July 14-August 2, 1949; paratypes: Several of both sexes, Mount Edith Cavell, Jasper National Park, Alberta, altitude 6,000 feet, July 22 and 25, August 5, 1949 (C. P. Alexander).

This unusually interesting fly is quite distinct from the other regional species, including Erioptera (Gonomyodes) knowltonia Alexander and E. (G.) tacoma Alexander, differing especially in the male hypopygium. The flies were very common at the Great Divide in Kicking Horse Pass, especially along the upper branch of the Kicking Horse River where it forms the Provincial boundary. Here they were swept from spruce, fir, birch and willow close to the stream. Later it was found at Mount Edith Cavell where it was associated with E. (G.) tacoma. The weather was constantly cold and rainy and the various crane-flies were swept from underneath the lower branches of evergreens

growing close to the glacial stream emanating from the Angel Glacier.

Erioptera (Hesperoconopa) pugilis new species

General coloration gray, the praescutum with a broad median darker brownish gray stripe; antennae relatively long, more than one-fourth the length of body; wings with a rather strong brownish tinge, stigma faintly indicated; no macrotrichia in cells, Sc_2 atrophied; male hypopygium with the lateral branch of the outer dististyle small; inner dististyle unusually stout, on its lower margin at near three-fourths the length with a conspicuous knob; inner gonapophysis dilated at tip into a weakly spatulate blade, the margin of which is microscopically serrulate; aedeagus short.

- 3. Length about 4.5 mm.; wing 5 mm.; antenna about 1.4 mm.
- ♀. Length about 4.5–5 mm.; wing 5–5.5 mm.

Rostrum gray; palpi black. Antennae with scape and pedicel black, basal segments of flagellum brown, the outer ones more blackened; antennae relatively long, as shown by the measurements; flagellar segments subcylindrical to long-oval, with a dense white pubescence; verticils relatively inconspicuous, more evident on the proximal segments. Head gray.

Mesonotum gray, with darker markings, including a broad median brownish gray praescutal stripe; scutal lobes less evidently darkened. Pleura clear light gray. Halteres uniformly pale yellow. Legs with the coxae heavily gray pruinose; trochanters dark brown; remainder of legs chiefly dark brown, femoral bases restrictedly paler; tibiae, except for tips, somewhat paler. Wings with a rather strong brown tinge, prearcular field more yellowed, stigmal region faintly and restrictedly more darkened; veins brown, paler in the prearcular field. No macrotrichia in wing cells. Venation: Sc_2 atrophied; R_{2+3+4} a little less than twice R_{2+3} ; m-cu at fork of M.

Abdomen, including hypopygium, brownish black. Male hy-

popygium with the mesal face of basistyle with unusually long and abundant setae. Outer dististyle with lateral branch small. Inner dististyle unusually stout, its outer surface with the usual erect to subretrorse setae; lower margin at near three-fourths the length with a conspicuous knob giving a sinuous appearance to the lower margin of the style. Inner gonapophysis dark colored, dilated at apex into a weak spatulate blade, the margin microscopically serrulate. Aedeagus short, the lateral flange extending to the tip or virtually so.

Habitat. Colorado. Holotype: 3, Gothic, Gunnison County, altitude 9,500 feet, July 6, 1934 (C. P. Alexander). Allotopotype: 2. Paratopotype: 1 3, July 2, 1934.

Erioptera (Hesperoconopa) pugilis is most readily separated from the only similar regional species, E. (H.) aperta (Coquillett), by the structure of the male hypopygium, particularly the inner dististyle and gonapophyses.

(To be continued)