

UNDESCRIBED SPECIES OF TIPULIDÆ FROM
UTAH (DIPTERA)

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The following undescribed species of crane-flies were included in a small series of specimens collected in Utah by Dr. James G. Needham and kindly sent to me for identification. The names are published in this preliminary paper in order to make them available for Doctor Needham's forthcoming report on the food of certain fishes. The types of the novelties have been deposited in the Cornell University collection. I wish to express my deep thanks to Doctor Needham for this kindly interest and for very many favors in the past.

Limnophila nemoptera Alexander, new species

Female. Length, 6.5 mm.; wing, 2.9 mm.

Described from an alcoholic specimen.

Rostrum very short, pale; palpi brown, all segments very short. Antennæ with but fifteen segments, the last two more or less fused; flagellar segments oval, gradually decreasing in size outwardly; basal segment of scape pale, the remainder of the organ dark brown. Head brown, paling into brownish yellow on the genæ.

Thorax yellow, the anterior median portion of the præscutum a little darkened. Halteres pale. Legs relatively long and slender; coxæ pale, the middle and hind coxæ elongated; trochanters obscure yellow; femora, tibiæ and basitarsi pale, the tips a little infuscated; terminal tarsal segments uniformly blackened. Wings reduced to long, narrow strips, pale yellow, with only the distal sixth or less weakly infuscated; wings longer than the combined head and thorax and about three times as long as the halteres alone; venation entirely degenerate.

Abdominal tergites brownish yellow with a dorso-median brown longitudinal stripe on the fourth to seventh tergites, including the caudal margins of the segments; basal sternites yellow, the outer ones a little darker with infuscated caudal margins; genital segment yellow. Ovipositor with the tergal valves rather angularly upturned opposite the level of the tips of the sternal valves.

Holotype, ♀, **Peterson's Spring, Utah**, one of the sources of the Logan River, altitude about 7500 feet, July 20, 1926 (J. G. Needham).

Limnophila nemoptera belongs to the group of subapterous species hitherto represented in the Western Nearctic fauna by *L. aspidoptera* Coquillett (New Mexico) and *L. subaptera* Alexander (California), distinguished by the presence of but

fifteen antennal segments and highly degenerate wings in both sexes, so far as these latter are both known. The present species is well distinguished by its small size and generally pale coloration, with a distinct darker stripe on the abdominal tergites. It is most closely related to *L. subaptera* in having the wings long and narrow, much exceeding the halteres.

***Psiloconopa mormon* Alexander, new species**

Male. Length, about 4-4.5 mm.; wing, 4-5.5 mm. Female. Length about 5-6 mm.; wing, 5 mm.

Described from alcoholic specimens. General coloration brownish black, this including the head and appendages, thorax and abdomen.

Antennæ (δ) relatively elongate, if bent backward extending about to the base of the abdomen; flagellar segments elongate-oval, becoming shorter outwardly, the terminal segment abruptly smaller.

Halteres pale. Legs black, the femoral bases restrictedly paler. Wings of normal length and width, tinged with grayish brown, the stigmal region very faintly darker; veins dark brown. Venation: Sc_1 ending shortly beyond the fork of R_s , Sc_2 not apparent; R_s elongate; r a little more than its own length beyond the origin of R_2 ; cell 1st M_2 open by the atrophy of m ; cell M_3 about twice its petiole; vein 2nd A straight, relatively long, ending opposite the origin of R_s .

Male hypopygium with the basistyles relatively short and stout, their outer faces only sparsely setiferous, the mesal faces densely provided with setæ. Outer dististyle gently arcuated, with a blunt spine on margin before midlength. Inner dististyle a little more than one-half the length of the outer, stout, straight, the outer face densely set with erect to subretorse setæ. Gonapophyses longer than the ædeagus, nearly straight, their tips a little incurved. Ædeagus subtended on either side by a broad flange that becomes narrower outwardly.

In the female the antennæ are shorter, the outer flagellar segments short-oval. Legs shorter and stouter.

Holotype, δ , Logan River, Utah, altitude about 5500 feet, June 23, 1926 (J. G. Needham). Allotopotype, φ . Paratypes, 5 δ φ .

A small group of dark-colored Eriopterini that have been placed hitherto in *Erioptera* are now transferred to the genus *Psiloconopa* Zetterstedt, the members of which until now were recognized only from the Palæarctic Region. The genus is still poorly understood, and in the European fauna rather discordant elements have been associated in the group. The late Doctor Bergroth and other authorities considered *Psiloconopa* to be very close to *Gnophomyia* Osten Sacken, but Crampton's very

important work on the thoracic sclerites of the Eriopterine Tipulidæ (Insec. Inscit. Menst., 13: 197-213; 1925), has shown the genus to be most closely allied to *Erioptera*, of which it may eventually be held to constitute only a subgenus. The Nearctic species, all western in distribution, that have been described as species of *Erioptera* but apparently refer to the present group are as follows: *P. laticeps* Alexander (California), *P. pilipennis* Alexander (Oregon), and a group of arctic and subarctic species from Alaska and the Canadian northwest; *P. angustipennis* Alexander, *P. katmai* Alexander, *P. alaskensis* Alexander, and *P. aldrichi* Alexander.

THE WHITE-LINED SPHINX

The white-lined sphinx, *Celerio lineata* (Fabr.), is often abundant in the desert areas of southern California. I have repeatedly taken great numbers of the adults about lights, but not until last spring did I run across the larvæ in such abundance. After turning on to the Palm Springs highway at White Water, and continuing across the Southern Pacific railroad beyond Palm Springs station, the caterpillars were observed crossing the macadam highway in increasingly greater numbers as far as the bridge which crosses the wash near the hills, beyond which none was to be found. In examining the infested area the larvæ were everywhere and literally swarmed over the sand.

They varied in length from two inches to five inches. The black and orange color phase greatly predominated, and only rarely could the black and green individuals be found. Many of them were very restless and were crawling about over the hot sand in great haste. Those which attempted to cross the smooth road were rolled over and over long distances by a strong wind, but as soon as they regained their feet they were off again and as often in the opposite direction. All threw themselves violently and exuded an abundance of green excrement when touched, so that the large jarful that I brought home was collected by means of a stick and a tin can.

They were feeding chiefly upon a desert primrose (*Enothera* sp.) which was abundant at that season (March 30, 1926). All of these plants were either partially or entirely defoliated. They were also observed to feed on locoweed (*Astragalus* sp.) and desert malva (*Sphæralcea ambigua* Gray?).—E. O. Essig.