Reprinted from ENTOMOLOGICAL NEWS, Vol. LXI, No. 2, February, 1950
Printed in U. S. A.

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

Part XII

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The preceding part under this general title was published in ENTOMOLOGICAL NEWS 60: 39–45. At this time I am discussing some additional novelties that were collected by myself in various parts of California in 1947 and 1948. The types of these species are preserved in my personal collection of the Tipuloidea.

Pedicia (Tricyphona) bidentifera new species

Allied to *simplicistyla;* thorax uniformly light yellow, unpatterned; halteres and legs pale yellow; wings pale yellow, restrictedly patterned with pale brown; male hypopygium with the interbase appearing as a powerful flattened blade, at apex split into two subequal teeth, with a smaller spine or flange on the face at near midlength.

♂. Length about 12–13 mm.; wing 10–12 mm.

Rostrum yellow; palpi brownish black. Antennae short, yellow throughout. Head light yellow.

Thorax uniformly light yellow, unpatterned. Halteres and legs pale yellow, the outer two tarsal segments darkened. Wings with the ground pale yellowish subhyaline, restrictedly patterned with darker, including the pale brown costal border that extends to the wing tip; further slightly darker spots along

the cord, origin of *Rs,* outer end of cell *1st* M_2 and over vein R_2 and the supernumerary crossvein beneath it; veins yellow, including those in the darkened areas. Venation: Radial field variable, R_{2+3+4} being present to virtually lacking, in the latter case cell R_3 subsessile; a supernumerary crossvein in cell R_3, virtually in alignment with vein R_2; *m* at or before the fork of M_{1+2}.

Abdomen with the tergites brownish yellow, paler laterally; sternites and hypopygium light yellow, the outer ends of the appendages of the latter darker. Male hypopygium with the caudal border of the ninth tergite very gently emarginate, the edge and the low lobes densely setuliferous. Basistyle extended into a stout lobe, the apex of which is densely set with pale brown spinous setae and a few longer pale setae, the latter more numerous on the mesal face, on the proximal end forming a tuft of long yellow setae; interbase appearing as a powerful flattened blade, at apex split into two subequal teeth, with a smaller spine or flange on the face at near midlength; surface of interbase with microscopic appressed setulae. Dististyle simple, longer than the apical lobe of the basistyle, constricted on outer margin at near midlength, the apex narrowly obtuse. Phallosome with the apophyses separated from the longer dark-colored aedeagus.

Habitat. CALIFORNIA. *Holotype:* ♂, Hatchet Pass, Burney, altitude 4,200 feet, July 9, 1947 (C. P. Alexander). *Paratopotypes:* 1 ♂, with the type; 5 ♂♂, August 12, 1948 (C. P. Alexander).

While generally similar to *Pedicia* (*Tricyphona*) *simplicistyla* Alexander, the present fly is quite distinct in the structure of the male hypopygium, particularly of the interbase.

Dicranota (Rhaphidolabis) tehama new species

Thorax brownish gray, the praescutum with three darker brown stripes; legs black, the femoral bases narrowly obscure yellow; wings with a grayish tinge, the stigmal area scarcely differentiated; *Sc* moderately long, Sc_1 ending approximately opposite the fork of *Rs; r–m* approximately one-half its own

length before the fork of *Rs*, R_{2+3} perpendicular at origin; *m–cu* at or close to fork of *M*; cell *2nd A* relatively long and narrow.

♀. Length about 7 mm.; wing 5.2 mm.

Rostrum short, brownish gray; palpi black. Antennae black throughout; flagellar segments short-oval. Head grayish brown.

Pronotum dark brownish gray. Mesonotal praescutum brownish gray, with three darker brown stripes; posterior sclerites of notum and the pleura dark gray; dorsopleural membrane dark buff color. Halteres with stem white, knob slightly more infuscated. Legs with the coxae gray; trochanters brownish gray; remainder of legs black, the femoral bases narrowly obscure yellow. Wings with a grayish tinge, the prearcular field narrowly yellow; stigmal area scarcely differentiated; veins pale brown. Venation: *Sc* moderately long, Sc_1 ending about opposite to shortly beyond the fork of *Rs*, Sc_2 at near three-fifths the length of *R* beyond the arculus; *Rs* strongly arcuated, with *r–m* from one-third to about two-thirds its own length before the fork; R_{2+3+4} subequal to the distal section of *Rs*; R_{2+3} perpendicular at origin; R_{1+2} subequal to or shorter than R_2; cell M_1 shorter than M_3; *m–u* at or close to fork of *M*; cell *2nd A* relatively long and narrow.

Abdomen elongate; tergites brown, sternites somewhat lighter; cerci elongate, horn-yellow.

Habitat. CALIFORNIA. *Holotype:* ♀, Kings Creek Meadows, Lassen Volcanic National Park, altitude 7,500 feet, July 6, 1947 (C. P. Alexander).

The most similar described regional species are *Dicranota* (*Rhaphidolabis*) *nooksackensis* Alexander and *D.* (*R.*) *nuptialis* Alexander, both of which differ conspicuously in the venation, especially of the radial and medial fields, and in the broad cell *2nd A*. The specific name, *tehama,* is that of an ancient mountain some three miles southwest of Lassen Peak, its remnants persisting as Brokeoff Mountain, Mount Diller and other parts of the former rim of the caldera.

Ormosia (Ormosia) tahoensis new species

Belongs to the *similis* group; general coloration of thorax dark brownish gray; antennae (male) of moderate length, being approximately one-fourth the length of the wing; wings with cell M_2 open by the atrophy of the basal section of M_3; male hypopygium with the phallosome very complex, especially the outer apophyses which are branched to an exceptional degree.

♂. Length about 5 mm.; wing 5.7–5.8 mm.; antenna about 1.3–1.4 mm.

Rostrum gray pruinose; palpi black. Antennae (male) of moderate length, black throughout; flagellar segments subcylindrical or slightly produced on lower face, provided with a dense erect white pubescence; verticils of basal segments long, much exceeding the segments, becoming shorter on the outer ones, small and delicate on the outer two or three. Head brownish gray.

Thorax almost uniformly dark brownish gray, the pretergites obscure yellow; lateral praescutal borders and region of the wing root obscure yellowish brown; pseudosutural foveae black. Halteres with stem weakly infuscated, the apex of knob vaguely more brightened. Legs with the coxae obscure yellow, the fore pair darker; trochanters yellow; remainder of legs brown, the femoral bases yellow. Wings with a weak brownish tinge, the stigmal region infuscated; outer part of cell *C* less evidently darkened; wing base restrictedly yellow; veins brown, yellow in the prearcular field. Venation: Cell M_2 open by the atrophy of the basal section of M_3; *m–cu* at or close to fork of *M*; vein *2nd A* sinuous on outer third.

Abdomen, including hypopygium, brownish black. Male hypopygium with the appendage of the ninth tergite nearly parallel-sided, the apex subtruncate, only weakly notched medially; lobes with fimbriations unusually short. Outer dististyle dilated outwardly, the broad apex truncated, the outer apical angle more produced; surface of style with rows of appressed blackened points, as in the group. Inner dististyle a slender straight rod, on outer margin at near midlength with a small blackened knob, beyond which the style is dilated into a slightly more widened blade, the tip a short point. Phallo-

some very complex; inner apophyses appearing as flattened blades, the outer margin near apex produced laterad into a point; outer apophyses unusually branched, including an inner axial spine and a longer outer lateral one that bears two sharp spurs, one on the upper surface, the other on the lower margin; nearer the base of the main axis with a further strong arm that is extended into two very unequal spines.

Habitat. CALIFORNIA. *Holotype:* ♂, Truckee River, along small spring-fed rill near Deep Creek, Placer Co., 5,950 feet, July 2, 1947 (C. P. Alexander). Paratopotype: 1 ♂, July 1, 1947

While generally similar to species such as *Ormosia* (*Ormosia*) *meigenii* (Osten Sacken), the present fly is very distinct in the structure of the male hypopygium, particularly the unusually complicated phallosome.

Ormosia (Ormosia) burneyensis new species

Belongs to the *similis* group; mesonotum dark reddish brown, the pleura more yellowed; antennae (male) elongate, exceeding one-half the length of wing, the flagellar segments nodulose, the basal swellings of the individual segments long-fusiform; cell M_2 open by the atrophy of the basal section of M_3; male hypopygium with the mesal margin of the basistyle produced into a blackened bispinous structure; phallosome on either side of aedeagus produced into two spines, the outer one small.

♂. Length about 4–4.5 mm.; wing 4.5–5.4 mm.; antenna about 3–3.2 mm.

Rostrum and palpi brown. Antennae (male) elongate, exceeding one-half the wing; scape and pedicel yellow, flagellum dark brown; flagellar segments long-fusiform, the basal swellings conspicuous, provided with dense whorls of long pale setae that exceed the segments in length and are considerably longer than the dark verticils. Head dark brown.

Pronotum brown, the pretergites whitened. Mesonotum dark reddish brown; pseudosutural foveae reddish; pleura more yellowed. Halteres pale. Legs with the coxae and trochanters yellow; remainder of legs brownish yellow, the outer tarsal segments slightly darker. Wings with a weak brownish tinge, the

stigmal region slightly darker, the prearcular field more yellowed; veins brown, yellow at the wing base. Venation: Cell M_2 open by the atrophy of the basal section of M_3; *m–cu* at fork of *M;* vein *2nd A* sinuous on distal third.

Abdomen, including hypopygium, dark brown. Male hypopygium with the appendage of the ninth tergite unusually wide, the apical emargination very broad and shallow, the lateral lobes correspondingly stout and obtuse, with long pale fimbriations. Outer dististyle with the rows of scabrous points reduced, more or less restricted to the outer fourth. Inner dististyle a little longer, the apex obtuse, weakly darkened. Basistyle on mesal margin produced into a blackened bispinous structure, the lower spine smooth, the outer or axial one stouter, bladelike, the outer margin and apex microscopically serrulate. Phallosome stout, abruptly narrowed into the aedeagus, at point of narrowing each outer lateral angle produced into two spines, the outer one small, the inner long and straight, decussate across the midline.

Habitat. CALIFORNIA. *Holotype:* ♂, Hatchet Pass, Burney, altitude 4,200 feet, July 9, 1947 (C. P. Alexander). *Paratopotype:* ♂. *Paratypes:* ♂♀, Castle Crags State Park, Shasta Co., altitude 2,050 feet, August 13, 1948 (C. P. Alexander).

The most similar regional species is *Ormosia* (*Ormosia*) *heptacantha* Alexander, which differs most evidently in the structure of the male hypopygium, as described.

Ormosia (Ormosia) pernodosa new species.

Allied to *albertensis;* general coloration of mesonotum reddish brown, the pleura clearer yellow; antennae of male elongate, exceeding one-half the length of body; flagellar segments very strongly nodose, with long erect pale setae on the enlarged part, with approximately the outer half of the segment glabrous; Anal veins divergent.

♂. Length about 3.5–3.6 mm.; wing 4–4.2 mm. antenna about 2 mm.

♀. Length about 4–5 mm.; wing 4.5–5.5 mm.

Rostrum yellow; palpi black. Antennae (male) long, exceeding one-half the body; scape obscure yellow, the remaining

segments brownish black; flagellar segments unusually nodose, each with a major basal enlargement that is provided with long outspreading setae, additional to a single even longer verticil; longest ordinary seta about as long as the segment; verticils approximately one-third to one-half longer than the segment; distal half or less of segment narrowed, glabrous. In *albertensis,* the segments are fully as long but are narrower basally and not so strongly nodose, with the ordinary setae shorter and distributed over the entire segment with the exception of the outer fifth or sixth. Head infuscated on vertex, the front and orbits yellow.

Pronotum and pretergites yellow. Mesonotum reddish brown, the lateral praescutal borders yellow. Pleura and pleurotergite clearer yellow. Halteres infuscated. Legs with the coxae and trochanters yellow, remainder of legs dark brown. Wings with a brownish tinge, the stigmal region somewhat more infuscated, the basal portions a trifle more yellowed; veins brown. Venation: Sc_1 ending shortly beyond R_2, Sc_2 at about one-third the length of *Rs;* cell M_2 open by the atrophy of the basal section of $M_{3,4}$; *m–cu* close to fork of *M;* anal veins divergent.

Abdominal tergites dark brown, the sternites in male more yellowed; genitalia of both sexes yellow. Male hypopygium about as in *albertensis* or *onerosa.*

Habitat. CALIFORNIA. *Holotype:* ♂, Truckee River, along small spring-fed rill near Deep Creek, Placer Co., 5,950 feet, June 30, 1947 (C. P Alexander). *Paratopotypes,* ♂♂; paratypes, ♂♀, Upper Echo Lake, near Freeborn Cabins, 7,500 feet, July 4, 1947 (C. P Alexander).

The various species that center about *Ormosia* (*Ormosia*) *mesocera* Alexander, including besides the latter, *O.* (*O.*) *albertensis* Alexander, *O.* (*O.*) *onerosa* Alexander and the present fly, are all closely inter-allied, as well shown by the very uniform structure of the male hypopygium. However there are well marked differences in the structure of the antennae, ranging from the short inconspicuous structures of *onerosa* to the condition found in the present fly. The most nearly allied species is *albertensis* where the basal swellings of the flagellar segments are much less developed, as described above.