Bethylidae: *Pseudoisobrachium myrmicophilum* Ash., 4, *Ateleopterus* sp., 1, *Goniozus platynotae* Robertson, 1. Prosopidae, *Colletes brevicornis* Robertson, 1.

Halictidae: *Halictus illinoensis* Robertson, 18, *Halictus pilosus* Smith, 1, *Halictus sparsus* Robertson, 1, *Halictus versatus* Robertson, 6, *Halictus* sp., 3, *Augochloropsis cuprea* Smith, 1. Only five halictids were taken in the evening. No species was abundant until after June 7.

Apidae: *Apis mellifera* Linn., 4.

SUMMARY.

A net ten inches in diameter was attached to the right fender of an automobile and collections of flying insects were made morning and evening over a four mile stretch of road near Horse Cave, Kentucky, for the seven weeks from May 3 to June 20, 1934.

Of the determinations made to date, there were 196 species, 33 of which were taken abundantly or regularly and the remainder only occasionally. Of 65 families represented, the Sciaridae, Chironomidae and Staphylinidae were the most numerous. Over 3,000 specimens of each of these families were collected. Besides these three, 29 other families were frequently encountered and are discussed.

It seems apparent that there were more species and individuals flying, at the times of the collections, in the evening than in the morning. The response to the climate varied with each group, and a definite succession of forms is shown.

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

By CHARLES P. ALEXANDER, Massachusetts State College, Amherst, Massachusetts.

Very intensive work on the rich Tipulid fauna of the western Nearctic Region has been done in recent years. During the course of these studies, many new species of these flies have been discovered and are being described. In the present article

I am discussing four species of Eriopterini that were included in an interesting series of these flies kindly presented to me by Dr. Henry K. Townes, who collected the specimens in Washington and California. I wish to express my deepest thanks to Dr. and Mrs. Townes for the privilege of retaining these specimens in my extensive collection of Tipulidae.

Erioptera (Hoplolabis) rainieria n. sp.

Erioptera (*Hoplolabis*) *rainieria* is readily distinguished from its nearest described relative, *E.* (*H.*) *dorothea* Alexander, of the central and southern Rocky Mountains, by the venation and, especially, the structure of the male hypopygium. I consider both of the above flies as being members of *Hoplolabis* Osten Sacken, but it is becoming increasingly difficult to separate members of this group from the more extensive subgenera *Psiloconopa* Zetterstedt, 1840, and *Ilisia* Rondani, 1856.

General coloration gray, the praescutum without evident stripes; wings pale yellow, heavily patterned with dark brown; cell *1st* M_2 unarmed, strongly widened distally; male hypopygium with the blackened dististyle of the male hypopygium unusually compact; phallosome with two arms, a slender spinous rod directed laterad and a more spatulate blade directed caudad.

♂. Length about 5.5 mm.; wing 6.3 mm.

Rostrum black, sparsely pruinose; palpi black. Antennae relatively long, black, the pedicel a little brighter; flagellar segments, especially the outer ones, elongate; longest verticils a little exceeding the segments. Head dark gray; anterior vertex moderately wide.

Pronotum dark brown, sparsely pruinose; extreme lateral border, together with the anterior lateral pretergites light yellow. Mesonotum almost uniformly dark gray, the praescutum without evident stripes; pseudosutural foveae and tuberculate pits black; central portion of scutum not brightened, each lobe with vague indications of a dusky line near its mesal portion. Pleura dark gray; dorsopleural membrane obscure buffy yellow, weakly infuscated at near midlength. Halteres yellow. Legs with the coxae dark plumbeous; trochanters obscure

brownish yellow; femora obscure yellow, the tips brownish black; tibiae obscure yellow, the bases and tips more darkened, the former somewhat more extensively so; tarsi passing into dark brown. Wings with the ground color pale yellow, the prearcular field more whitened; a conspicuous dark brown pattern, including spots arranged as follows: Arculus; origin of *Rs*; Sc_2; a band along cord, extending from *C* to vein *Cu*, interrupted at vein *M*; R_2 and R_{1+2}; tip of R_3; two disconnected spots at outer end of cell *1st* M_2; smaller marginal brown spots at ends of all longitudinal veins, becoming larger on vein *2nd A*; veins pale brown, darker brown in the patterned areas. Venation: Cell *1st* M_2 unarmed, strongly widened distally, shorter than in *dorothea*; *m-cu* about one-half its own length before the fork of *M*, more oblique than in *dorothea*.

Abdomen, including hypopygium, brownish black. Blackened dististyle of male hypopygium unusually compact; two branches closely appressed, the more divergent inner arm a blackened cultrate blade. Phallosome with two arms, a slender spinous rod directed laterad and a longer more spatulate blade directed caudad.

Holotype: ♂; Mount Rainier, WASHINGTON, altitude 5,000 feet, July 14, 1940 (H. & M. Townes).

Ormosia (Ormosia) leptorhabda n. sp.

Ormosia (*Ormosia*) *leptorhabda* is entirely distinct from other generally similar species, such as *O.* (*O.*) *divergens* (Coquillett) and *O.* (*O.*) *flaveola* (Coquillett). The structure of the male hypopygium is entirely different from these allied forms having cell M_2 of the wings open by the atrophy of *m*, rather than the more common condition of being open by the atrophy of the basal section of vein M_3.

General coloration brown; antennae short; wings with a strong brown tinge; cell M_2 open by atrophy of *m*; anal veins divergent; male hypopygium with the inner dististyle a slender straight rod, the apex truncated and slightly expanded; phallosome consisting of a broad depressed-flattened plate, the

outer lateral angles produced into strong spines that are directed cephalad.

♂. Length about 4 mm.; wing 4.5 mm.; antenna about 0.8 mm.

Rostrum and palpi dark brown. Antennae dark brown throughout, short; flagellar segments relatively long, the more basal segments with very long verticils. Head gray.

Pronotum light brown, the pretergites restrictedly light yellow. Mesonotal praescutum brown, very sparsely pruinose, without pattern, the humeral region more reddish; posterior sclerites of notum brown. Pleura brownish yellow. Halteres with stem yellow, knob weakly darkened. Legs with the coxae and trochanters yellow; remainder of legs brown, the terminal tarsal segments brownish black. Wings with a strong brownish tinge, the prearcular and basal costal fields more yellow; stigmal region a trifle darker; veins pale brown, those in the brightened portions more yellow; macrotrichia brown, only moderately abundant but well-distributed over the surface. Venation: R_2 subequal to R_{2+3}; cell M_2 open by the atrophy of m; cell M_3 much longer than its petiole; *m-cu* about one-fifth its own length beyond the fork of M; anal veins divergent.

Abdomen dark brown; hypopygium more brownish yellow. Male hypopygium with the tergite large, subtriangular in outline, widely dilated outwardly, the caudal margin pale, truncated or very feebly emarginate. Outer dististyle a flattened dark lobe, the apical portion set with parallel rows of microscopic spines. Inner dististyle somewhat shorter, appearing as a straight slender rod, the apex slightly dilated and bluntly truncate, the lower or inner margin with a white membrane provided with several scattered small pale setae from conspicuous raised tubercles. Phallosome with the central portion a depressed-flattened heart-shaped blade, its apex obtusely rounded; behind this central blade a much broader, depressed-flattened plate, the caudal-lateral portions of which are produced into a strong spine directed cephalad and slightly outward.

Holotype: ♂; Crescent City, Del Norte Co., CALIFORNIA, August 1, 1940 (H. & M. Townes).

Ormosia (Ormosia) profunda n. sp.

Ormosia (Ormosia) profunda is quite different from the other members of the *manicata* group so far made known, in some respects tending to connect this group with others in the genus. The shape of the tergite and structure of both dististyles readily separate this fly from other related described species.

Allied to *manicata*; general coloration reddish brown, with three confluent darker brown stripes; antennae short, flagellar verticils very long; anal veins divergent; male hypopygium with lobes of tergite parallel-sided, not dilated or darkened outwardly, separated by a very deep and narrow notch; outer dististyle flattened, split by a narrow notch into two very unequal lobes; inner dististyle a flattened blade with a triangular flange on face; elongate blades of phallosome much shorter and stouter than in other members of the group.

♂. Length about 4.2 mm.; wing 4.8 mm.; antenna about 0.9 mm.

Rostrum and palpi brownish black. Antennae (♂) short, dark brown throughout; flagellar segments cylindrical to subcylindrical, with unusually long verticils, those of the subbasal segments exceeding three times the length of the segment or nearly one-third the length of the entire flagellum. Head dark brownish gray.

Pronotum infuscated, paler laterally; pretergites pale yellow. Mesonotal praescutum reddish brown with three confluent darker brown stripes; posterior sclerites of notum similarly darkened. Pleura obscure yellow throughout. Halteres with stem yellow, knob weakly darkened. Legs with coxae and trochanters light yellow; femora and tibiae pale brown, the tarsi passing into brownish black. Wings subhyaline, the stigmal region weakly darker; veins brown. Venation: R_2 nearly equal in length to R_{2+3}; cell M_2 open by atrophy of M_3; *m-cu* erect, gently sinuous, just before fork of M; Anal veins divergent.

Abdomen, including hypopygium, dark brown. Male hypopygium with the ninth tergite conspicuous, projecting caudad into a median plate that divides into two narrow lobes that are about parallel-sided for their entire length; tips of lobes paler, obliquely rounded, not expanded at tips as in *manicata* and allies; notch separating the lobes very deep and narrow, extending back to about the basal third of the tergal projection. Basistyle produced beyond point of origin of dististyles into a subacute lobe. Outer dististyle paler than the inner, flattened, split by a narrow notch into two very unequal lobes, the inner one short and obtuse. Inner dististyle of irregular conformation, appearing as a flattened blade, the base arcuate; face of expanded portion produced into a conspicuous triangular point or flange. Elongate blades of phallosome much shorter and stouter than in *manicata,* the blackened inner apophyses much as in members of the latter group.

Holotype: ♂; Crescent City, Del Norte Co., CALIFORNIA, August 1, 1940 (H. & M. Townes).

Molophilus (Molophilus) rainieriensis n. sp.

Molophilus (*Molophilus*) *rainieriensis* suggests the Eastern *M.* (*M.*) *pubipennis* (Osten Sacken) and related forms but is well-distinguished by the short antennae in both sexes. From the regional members of the *pubipennis* subgroup having short antennae, such as *M.* (*M.*) *forcipulus* (Osten Sacken) and *M.* (*M.*) *paulus* Bergroth, it is readily told by the coloration of the body and wings.

Belongs to the *gracilis* group, *pubipennis* subgroup; general coloration yellow, the mesonotal praescutum with three confluent reddish stripes; antennae short in both sexes; scape and pedicel obscure yellow, flagellum black; head yellow; fore femora chiefly blackened, posterior femora yellow, the tips darkened; wings with a deep yellow tinge, the veins darker yellow; male hypopygium with the outer dististyle a long slender curved hook, the basal two-thirds nearly straight, with only three or four spinous points, all on basal portion.

♂. Length about 3.8 mm.; wing 4.5 mm.; antenna about 1 mm.

♀. Length about 4.5 mm.; wing 4.8 mm.

Rostrum yellow; palpi black. Antennae short in both sexes; scape and pedicel obscure yellow, flagellum black; flagellum (♂) with basal segments short and crowded, their ends truncated and closely applied to one another; outer segments long-oval; segments with relatively long verticils. Head shiny yellow.

Pronotum pale yellow, the lateral pretergites yellowish white. Mesonotal praescutum almost covered by three confluent reddish stripes, the humeral and lateral borders light yellow; posterior sclerites of notum reddish, the scutellum yellow, the postnotum variegated by yellow spots. Pleura reddish yellow, indistinctly patterned with yellow areas. Halteres uniformly pale yellow. Legs with the coxae and trochanters yellow; fore femora chiefly blackened, only the basal third brighter; fore tibiae light brown, the tips darker; tarsi passing into brownish black; posterior legs yellow, the tips of femora, tibiae and basitarsi narrowly darkened. Wings with a deep yellow tinge; veins darker yellow; macrotrichia brown. Venation: R_2 almost in transverse alignment with *r-m*; petiole of cell M_3 exceeding three times the length of *m-cu*; vein *2nd A* long and gently sinuous, ending just before the level of *m-cu*.

Abdomen brownish yellow, the male hypopygium deeper yellow. Hypopygium with the outer lobe of basistyle ending about on a level with the tip of the inner dististyle. Outer dististyle a long slender curved hook, the basal two-thirds nearly straight, the distal portion bent at nearly a right angle into a long black spine; basal portion of style with three or four small spinous points and scattered setae. Inner dististyle a flattened darkened plate, covered with microscopic scabrous points, the obtuse apex directed strongly mesad. Basistyle with the spinous points relatively short and stout, appearing as long cones, about 25–30 in number.

Holotype: ♂; Mount Rainier, WASHINGTON, altitude 2,700 feet, July 8, 1940 (H. & M. Townes). *Allotopotype,* ♀, with the type.

A New Species of Calendra from Oregon. (Coleoptera, Curculionidae.)

By A. F. SATTERTHWAIT, Bureau of Entomology and Plant Quarantine, United States Department of Agriculture.

Mr. Borys Malkin, University of Oregon, Eugene, Oreg., a successful collector of corn billbugs, included in his sendings of *Calendra* to the writer the following new species, which is similar to *C. venatus* (Say) except that it lacks the typical apical fossa of the pronotum.

Calendra eugenia, n. sp.

Male: Front tibia broadly rounded at outer apical angle. Third joint of front tarsus about one-half wider than second, that of middle and hind tarsi about same width as second, all glabrous beneath.

Elytra with the odd intervals 1, 3, and 5 slightly elevated and wider than the even intervals, punctures fine, uniseriate in 3 and 5, slightly confused in 1. Punctures very slightly coarser on even intervals. Strial punctures rather coarse, 10 or 11 in basal half of each of the first two striae.

Pronotum with median vitta slender at base and apex, widest before middle; lateral vittae well marked on basal half, with branches indistinct. Punctures largest and somewhat confluent in basal areas between vittae, confluent and nearly as large near apex though affecting much less area. Collar distinct, complete. No apical fossa.

Beak slightly compressed, three-fourths as thick at middle as it is deep at apex; not flattened above; lower apical angle obtuse; curvatures of upper and lower profiles fairly regular. Interocular puncture deep, not circular, about 3 times as long as broad, with a faint impressed line nearly as long as basal width of rostrum.

Pygidium with moderately coarse punctures beset with short setae on apical third, without keel or tufts. Apex broadly rounded. Depression of metasternum of first and second sternites well defined.