

Kaslo, 11 June to 5 August, four specimens; Ainsworth, 11 July, two specimens; Kokanee Mountain, altitude 8,000 feet, 10 August, one specimen.

The specimen collected on June 11 is teneral.

The two following papers were read by title:

#### NEW DIPTERA FROM CENTRAL AMERICA.

By D. W. COQUILLET.

In the month of August, 1903, Prof. Carl F. Baker, of Pomona College, Claremont, California, donated to the National Museum a duplicate series and the unique specimens of Diptera collected by himself during a trip through Mexico and Central America, the only conditions being that the writer would engage to identify the specimens and publish descriptions of the new forms. The task of identifying and describing having now been completed, the descriptions are offered herewith:

#### Family CHIRONOMIDÆ.

##### *Ceratopogon terminalis*, n. sp.

Black, the legs yellow, the hind tibiæ and their tarsi except their bases brown (antennæ, front tarsi, and middle tibiæ and their tarsi wanting); eyes rather widely separated, head and body polished, mesonotum somewhat scabrous, its hairs whitish; legs slender, devoid of spines, outer side of hind tibiæ and upper side of their tarsi fringed with rather long hairs, first joint of hind tarsi nearly twice as long as the second; wings very long and narrow, bare, whitish hyaline, the broad apex brown, apex of third vein near nine-tenths of the length of the wing, this vein wholly separated from the first vein and from the costa, not connected by a cross-vein; apex of first vein near one-fourth of the length of the third; veins whitish, the third vein, small cross-vein and last section of the costa brown, fourth vein forks slightly before the small cross-vein. Length 3 mm.

A female specimen from San Marcos, Nicaragua.

*Type*.—No. 7807, U. S. National Museum.

#### Family MYCETOPHILIDÆ.

##### *Sciara trifasciata*, n. sp.

Yellow, the front, upper part of the occiput, a pair of elongate-oblong spots on the mesonotum, the knobs of the halteres and the second, third and fourth segments of the abdomen except the narrow front margins of

the first two, black; the antennæ and tarsi except their bases brown; head rounded, rostrum broader than long; body somewhat polished; wings hyaline, apex of first vein considerably before the forking of the fourth, lower end of the small cross-vein before the forking of the fifth vein. Length 2.5 mm.

A female specimen from San Marcos, Nicaragua.

*Type*.—No. 7792, U. S. National Museum.

#### Family BIBIONIDÆ.

##### *Dilophus fumosus*, n. sp.

Black, the front coxæ, and the front and middle femora, except their extreme ends, yellow (hind femora, tibiæ and tarsi wanting); hairs black; rostrum narrow and elongate, longer than the eyes, the antennæ inserted at one-fourth of the distance from the base; front tibiæ bearing a pair of spines on the posterior side at one-third length of tibiæ, an oblique row of four spines at the middle and a row at the apex; wings pale brown, the costal cell and stigma dark brown. Length 6 mm.

A male specimen from Granada, Nicaragua.

*Type*.—No. 7793, U. S. National Museum.

##### *Dilophus rhynchops*, n. sp.

Black, the first antennal joint, front coxæ, their trochanters and femora, also basal half of hind femora, yellow (middle legs wanting); hairs black; rostrum about as long as the eyes, antennæ inserted at one-fifth of its length; body polished; spines of front tibiæ as in *fumosus*; wings hyaline, costal cell smoky, stigma brown. Length 3 mm.

A male specimen from Granada, Nicaragua.

*Type*.—No. 7794, U. S. National Museum.

#### Family THEREVIDÆ.

##### *Psilocephala pruinosa*, n. sp.

Black, the first two joints of antennæ, the halteres, femora, tibiæ and base of tarsi, yellow, venter of abdomen except at base, and the genitalia, reddish yellow, frontal triangle and face whitish pruinose, the tubercle above the antennæ and pair of tubercles below them polished; first joint of antennæ rather slender, slightly longer than the other two taken together; thorax gray pruinose, scutellum at base velvet black, the remainder gray pruinose, bearing four bristles; abdomen dorsally silvery-white pruinose, prolonged ventrally at the hind angles of the second and third segments, the broad hind margins of these segments white, hairs of abdomen and pleura chiefly white; wings hyaline, the base and costal cell yellowish, a brown cloud in base of first posterior cell and on cross-vein at base of the second, a large, indeterminate brownish

cloud near apex of wing, extending from slightly before apex of second vein to middle of second submarginal cell; fourth posterior cell closed and rather long petiolate. Length 6 mm.

A male specimen from Granada, Nicaragua.

*Type*.—No. 7795, U. S. National Museum.

#### Family CONOPIDÆ.

##### *Conops pallifrons*, n. sp.

Head yellow, occiput, except the upper and lower part and the sides on the lower half, black, front at insertion of antennæ narrowly margined with brown, a brownish streak below each eye in the male; antennæ reddish, the upper edge of the third joint and greater part of the second, black, the second joint subequal in length to the third; proboscis about one and one-half times as long as the head, reddish, the ends black; thorax black, a golden-yellow pruinose spot borders each humerus on the inner side, pleura crossed in front of middle coxæ by a yellowish pruinose band of well-defined outlines, a yellow pruinose spot on the hypopleura; abdomen black, sides of the second segment in the male reddish, broad base of the third yellow, second segment narrow, with nearly parallel sides, slightly longer than the third in the male, apices of male genitalia yellow; wings brown from costa to third vein, also along the third vein in first posterior cell and along fifth vein in discal cell except toward its apex, remainder of wings hyaline; halteres yellow; legs reddish brown, broad bases of tibiæ yellowish-white, tarsi and hind femora chiefly black. Length 6 to 8 mm.

A specimen of each sex from Chiuandega and San Marcos, Nicaragua. Also a male collected at San Rafael, Vera Cruz, Mexico, July 3, by Mr. C. H. T. Townsend.

*Type*.—No. 7796, U. S. National Museum.

#### Family TACHINIDÆ.

##### *Paradidyma orbitalis*, n. sp.

Black, the second joint of antennæ and broad base of the third, also the palpi and apex of proboscis, yellow; vertex one and one-half times as wide as either eye, one pair of orbital bristles, frontals descending nearly to the arista, a row of bristles extends from the lowest frontal just outside of the facial ridges to lower end of eyes, becoming stouter toward the lower end of the row, vibrissæ on a level with front edge of oral margin, two bristles above each; eyes bare, antennæ as long as the face, the third joint about eight times as long as the second, arista thickened on the basal three-fifths, the penultimate joint as broad as long; face in profile strongly convex except on the lowest fifth, cheeks one-third as wide as the eye-height; mesonotum grayish pruinose and with two broad black vittæ, three pairs of postsutural dorsocentral bristles, two sternopleurals, scu-

tellum bearing three marginal pairs; abdomen polished, narrow bases of first three segments whitish pruinose, these segments bearing only marginal bristles; fifth joint of front tarsi not compressed, of nearly an equal width, front pulvilli very short; wings hyaline, third vein bristly almost to small cross-vein, the others bare, first posterior cell short-petiolate. Length 4 mm.

A male specimen from Chinandega, Nicaragua.

*Type*.—No. 7797, U. S. National Museum.

### *Hypostena gracilis*, n. sp.

Black, the face, cheeks, first two joints of antennæ and broad base of the third, first three abdominal segments except a dorsal vitta and the base of the first dorsally and apex of the third, also the coxæ, femora and tibiæ, yellow, the femora and tibiæ tinged with brown; vertex about one-third as wide as either eye, frontals descending slightly below base of second antennal joint, antennæ four-fifths as long as the face, the third joint only slightly longer than the second, arista thickened on the basal third, the penultimate joint slightly longer than broad; vibrissæ on a level with front edge of oral margin, two bristles above each, face strongly retreating, concave, the cheeks one-fifth as wide as the eye-height, no orbital bristles; thorax yellowish-gray pruinose, mesonotum marked with four black vittæ, three sternopleural bristles; abdomen yellowish pruinose, apices of the first three segments polished, second and third segments bearing only marginal bristles, the fourth with a marginal and a submarginal row; front tibiæ subequal in length to the first three joints of their tarsi, pulvilli greatly elongated; wings hyaline, third vein bearing two bristles near the base. Length 6 mm.

A male specimen from Chinandega, Nicaragua.

*Type*.—No. 7798, U. S. National Museum.

### Family HETERONEURIDÆ.\*

#### *Chætoclusia*, n. gen.

Near *Heteromeriugia* but the first vein bristly on the apical three-fifths, etc. Two pairs of vertical bristles, three of orbitals, ocellars minute, no postverticals, no bristles on the frontal vitta, vibrissæ stout, antennæ short, porrect, third joint sub-orbicular, somewhat longer than the second, arista subapical, densely short-plumose, eyes oblique, nearly twice as high as long, cheeks about one-twelfth as wide as the eye-height, face perpendicular, proboscis short and robust, palpi well developed; thorax bearing two pairs of dorsocentral bristles, two pairs of supra-alar, one humeral, two posthumeral, one mesopleural and one sternopleural, scu-

\* The new name *Clusiodes* is hereby proposed for *Heteroneura* Fallen (*Agromyzides* Sueciæ, 1823) which is preoccupied by *Heteroneura* Fallen (*Spec. Ent. Dipt. Exhib.*, 1810). the latter a synonym of *Callomyia* Meigen (1804) in the family *Platyppezidæ*,



tellum bearing a subapical pair and a pair of very short bristles in front of them; tibiæ without preapical bristles; auxiliary vein distinct but extending rather close to the first, costa not spined, extending slightly beyond apex of third vein, hind cross-vein about its own length beyond the small, first posterior cell not narrowed outwardly, second basal cell separated from the discal, anal cell complete, rounded at its apex, sixth vein not reaching the wing-margin.

*Type*: The following species:

***Chætoclusia bakeri*, n. sp.**

Head and its members yellow, polished, the antennal arista and an ocellar dot black, a brownish spot on outer side of third antennal joint; thorax yellow, sides of mesonotum black, prolonged downward in front of and behind each wing, and inward at each end of the mesonotum, the two ends connected by a second black vitta; scutellum yellow, the sides at base brownish; abdomen black, the extreme base, a pair of spots at bases of segments four to six, the genitalia and venter, yellow; legs yellow, basal half of middle or hind tibiæ usually brownish, femora devoid of bristles, middle tibiæ bearing a stout apical spur on the inner side and an apical bristle on the outer side; wings hyaline, apex brownish, this color extending to middle of last section of third vein, an indistinct brownish cloud covering the small and hind cross-veins, last section of fourth vein about seven times as long as the preceding section; halteres yellow; all hairs and bristles yellowish. Length 4 mm.

Two male and two female specimens from Chinandega and Granada, Nicaragua.

*Type*.—No. 7799, U. S. National Museum.

Family SAPROMYZIDÆ.

***Sapromyza varia*, n. sp.**

Black, the antennæ and sides of face yellowish brown, broad hind margins of the abdominal segments and middle of the first one yellow, the halteres, tibiæ and tarsi except apices of the latter whitish, all hairs and bristles black; head opaque, grayish pruinose, a velvet black spot near middle of each cheek, contiguous to the eye, third joint of antennæ elongate oval, artista long-plumose; thorax opaque, gray pruinose, marked with four brown vittæ, the outer pair interrupted at the suture; abdomen polished, the broad hind margins of the first four segments thinly grayish pruinose, the fifth segment with four gray pruinose spots; wings grayish hyaline. Length 4 mm.

A single specimen from Chinandega, Nicaragua.

*Type*.—No. 7800, U. S. National Museum.

***Sapromyza albipes*, n. sp.**

Head yellowish, the face, cheeks, sides of occiput and the mouth parts whitish, center of occiput brown, frontal vitta bordered with brown, a

velvet black spot at each lower corner of the front; antennæ on the two basal joints brown, the third joint yellow, elongate oval, arista very long-plumose; body black, pleura tinged with yellow, apex of scutellum, base of abdomen and greater part of the genitalia, yellow; thorax bluish gray pruinose and marked with three brown vittæ: abdomen polished, a pair of lateral, gray pruinose spots on each segment; legs and halteres whitish; wings hyaline, hind cross-vein broadly bordered with brown, last section of fourth vein five times as long as the preceding section. Length 2 mm.

A male specimen from Granada, Nicaragua.

*Type*.—No. 7801, U. S. National Museum.

### *Sapromyza triseriata*, n. sp.

Yellow, the last four abdominal segments each marked with three black dots, the hairs and bristles black. Third joint of antennæ noticeably longer than wide, arista pubescent. Thorax yellowish pruinose, the scutellum and abdomen polished. Wings grayish hyaline, unmarked. Length 2 mm.

A single specimen from Chinandega, Nicaragua.

*Type*.—No. 7937, U. S. National Museum.

### Family ORTALIDÆ.

### *Euxesta juncta*, n. sp.

Head and its members yellow, the occiput except the lower edge, also the sides of the vertex and an ocellar dot, dark green, the hairs and bristles as also the antennal arista, black; thorax dark green, mesonotum grayish pruinose; scutellum yellow; abdomen dark green, the first two segments and base of the third yellow; legs yellow; wings whitish hyaline, marked with four brown cross bands, the first two are isolated, the other two are narrowly connected along the costa and again by an oblique streak near the middle of the first posterior cell; the first band is on a line with the humeral cross-vein, the second is very broad and passes just before the small cross-vein, the third passes over the hind cross-vein, while the fourth band borders the apex of the wing to slightly below apex of fourth vein; halteres yellow. Length 3 mm.

A male specimen from Granada, Nicaragua.

*Type*.—No. 7802, U. S. National Museum.

### *Euxesta fenestrata*, n. sp.

Head yellow, the occiput except middle of upper part and the lower edge, also the sides of the vertex and an ocellar dot, greenish black; antennæ and mouth parts yellow, the labella brown; thorax dark green, humeri reddish, scutellum yellow, abdomen reddish yellow, metallic, the ovipositor blackish; legs, including the coxæ, yellow; wings brown, the base to proximal end of discal cell whitish hyaline except a brown cross-band on a line with the humeral cross-vein, a whitish, subtriangular spot

extends from costa just beyond apex of first vein to the discal cell just beyond the small cross vein, a round spot of the same color in the submarginal cell near its middle, crossing this cell and encroaching slightly on the marginal cell, a smaller round spot in the first posterior cell slightly before the hind cross-vein, a subtriangular spot crosses the second posterior cell at its middle and extends a short distance into the first posterior cell; finally a similar spot crosses the third posterior cell a short distance before its apex and extends over half way across the discal cell; halteres light yellow. Length nearly 3 mm.

A female specimen from Champerico, Guatemala.

*Type*.—No. 7803, U. S. National Museum.

#### Family TRYPETIDÆ.

#### *Icterica apicalis*, n. sp.

Head yellow, frontal vitta reddish yellow, hairs and bristles black, the hairs on the front and a row of flattened bristles around upper half of occiput, also a pair in front of the vertical bristles yellowish white; body dark reddish yellow (apparently injured by moisture) varied with lighter yellow, the last segment of the abdomen chiefly black; scutellum bearing four bristles; legs reddish yellow, the tibiæ and tarsi lighter yellow; wings narrow, of nearly a uniform width, dark brown, the central portion from base of discal cell to slightly beyond its apex marked with about 34 yellow dots and small round spots, a yellow streak extends from apex of first vein obliquely into the submarginal cell, a second yellow streak extends from the extreme base of the wing through the anal and lower edge of the second basal cell and into the bases of the discal and third posterior cells, enclosing a brown spot in the discal cell and cutting off a second brown spot in the upper corner of this cell; the yellow coloring is prolonged as a narrow, interrupted border to the fourth vein nearly to the apex of the discal cell; extreme apex of wing and four drops along the hind margin whitish hyaline, that at the apex with the inner edge almost straight, extending from about midway between apices of the second and third veins to a short distance below apex of fourth vein; of the four hyaline drops along the hind margin of the wing, one is near the middle of the axillary cell, one is at the lower corner and a second is above the middle of the third posterior cell, while the fourth is below the middle of the second posterior cell; of the yellow dots and spots mentioned, only two are in the second posterior cell, situated near its inner upper angle, while the third posterior cell contains only one, situated slightly beyond and above the middle of the cell; halteres yellow. Length 5 mm.

A male specimen from San Marcos, Nicaragua.

*Type*.—No. 7804, U. S. National Museum.

## Family EPHYDRIDÆ.

**Notiphila frontalis**, n. sp.

Black, the palpi, third joint of antennæ except the upper edge, knees, last two pairs of tarsi and the halteres, yellow; front yellowish-gray pruinose and with a pair of broad, velvet-black vittæ which converge toward their lower ends which are as widely separated as the antennæ, face golden-yellow pruinose; thorax yellowish-gray pruinose, a brown vitta above middle of pleura and five on the mesonotum, the median three forked near the middle, the forks united, three and three, at the posterior end of the thorax; scutellum yellowish-gray pruinose and marked with four brown vittæ; abdomen olive-gray pruinose, segments two to five each marked with a pair of subtriangular black spots which cross the segment near its middle and at its base are prolonged to the lateral margin; wings hyaline. Length 2 mm.

Three specimens from Managua and Granada, Nicaragua.

*Type*.—No. 7805, U. S. National Museum.

## Family GEOMYZIDÆ.

**Scutops**, n. gen.

Near *Opomyza*, but the antennal arista is very long plumose, the face subtrigonate, no dorsocentral bristles on the thorax in front of the suture, etc. Head longest along the under side, front wider than long, bearing two pairs of vertical bristles and one pair each of postvertical, ocellar and orbital bristles; face somewhat shield shaped, hollowed out in the middle and elevated into a low ridge on each side and around the narrowed lower end, no vibrissæ; antennæ not quite reaching middle of face, the first joint very short, the second rather long and broad, the third slightly longer but narrower than the second, somewhat pointed at the apex, the arista dorsal, inserted near the base of the third joint, sparsely but very long plumose (nearly as in *Drosophila*); eyes reniform, over twice as high as long; cheeks about one-tenth as wide as the eye-height; proboscis short and robust, palpi spatulate; occiput strongly concave. Thorax bearing two pairs of dorsocentral bristles, two supra-alar, two posthumeral, one humeral, one sternopleural, pleura otherwise devoid of bristles, scutellum bearing four. Auxiliary vein absent except toward its base; second basal and anal cells large, sixth vein prolonged almost to the wing-margin, anal angle of wings strongly developed. Tibiæ devoid of preapical bristles.

*Type*: The following species:

**Scutops fascipennis**, n. sp.

Yellow, apices of palpi, two broad vittæ on the mesonotum, the metanotum except the sides, the abdomen and two interrupted bands on each tibia, black; the face, a vitta along the hind margin of each eye and one



extending from each humerus to the wing densely white pruinose, body elsewhere and the front polished, the mesonotum somewhat scabrous; hind margin of wings broadly grayish hyaline, base of the remainder yellowish, changing to brown outwardly, a white fascia crosses the wing midway between the hind cross-vein and the tip of the wing, the latter narrowly bordered with whitish; second vein extending rather close to the first and to the costa. Length, 3 mm.

Three specimens from Chinandega, Nicaragua.

*Type*.—No. 7806, U. S. National Museum.

#### Family OSCINIDÆ.

#### *Chlorops capillata*, n. sp.

Yellow, the upper apical angle of the third antennal joint, an ocellar dot, a dot behind and another below each humerus, black, apices of tarsi brown, mesonotum marked with three reddish yellow vittæ, antennal arista except at base white. Front rather strongly produced forward, frontal triangle polished, almost wholly covered with short hairs, without a median furrow, unusually broad, the sides strongly convex, extending to lower edge of the front where they form a blunt point; third joint of antennæ slightly longer than wide, the upper edge concave, the lower convex, the apex bluntly rounded; cheeks about one-fifth as wide as the eye-height. Body somewhat polished, not pruinose, the scutellum convex above. Wings hyaline, third and fourth veins diverging, hind cross-vein nearly three times its length beyond the small. Length 2 to 3 mm.

Three specimens. Granada, Nicaragua; Georgia, and North Carolina; the specimens from the two last-mentioned localities were collected by H. K. Morrison.

*Type*.—No. 7938, U. S. National Museum.

### SOME NEW OSMIINÆ IN THE UNITED STATES NATIONAL MUSEUM.

By E. S. G. TITUS.

#### *Ashmeadiella schwarzi*, n. sp.

♀.—Length 5 mm. Black, clothed with white pubescence, punctuation very dense and regular, more separate on thorax dorsally. Head, except occiput, densely clothed with long pubescence, thorax bare discally, scutellum with sparse pubescence, abdominal fasciæ regular and distinct, last segment with fine short hair. Legs with exceptionally sparse pubescence, tarsi slightly fuscous; mandibles tipped with red.

♂.—3.5-4.5 mm. Closely resembles the female, more stoutly built; tarsi, especially claw-joint, and claws fuscous. Apical abdominal teeth all short, the lateral teeth sharp, middle teeth rounded; all the teeth are