

NEW DIPTERA FROM NORTH AMERICA.

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The present paper is based primarily on a series of specimens collected by Mr. H. S. Barber, who, as assistant to Mr. E. A. Schwarz, accompanied the latter on a collecting trip to portions of New Mexico and Arizona during the past summer. The object of this expedition was to obtain specimens of Coleoptera, and the collecting of the Diptera was therefore a digression from the real object for which the trip was planned. The Diptera thus secured are almost without exception in first-class condition, and form by far the most valuable collection in that order that the United States National Museum has acquired during the past year. Owing to pressure of other duties only a portion of the collection has as yet been worked up, but even this portion has yielded many new and interesting forms which it is deemed advisable to make known at as early a day as possible, and they are therefore duly characterized in the following pages.

To the descriptions of these new forms are added those of several others obtained from various correspondents, and for some of which manuscript names have been sent out. Altogether, 4 new genera and 94 new species are described in this paper.

Family TIPULIDÆ.

ORIMARGA ARIZONENSIS, new species.

Body and head black, head and thorax rather densely gray pruinose, abdomen very thinly grayish pruinose, slightly polished, apex of female ovipositor reddish yellow, her pleura with a whitish vitta on the lower part; male claspers very broad, about one-fourth longer than broad, bluntly rounded at the apex; antennæ and mouth parts dark brown, halteres whitish, the base yellow, the knobs pale brown; coxæ dark yellow, remainder of legs pale yellow, apex of femora, both ends of tibiae, and the tarsi toward the tips, brown; wings hyaline,

toward the base whitish, the extreme base dark yellow, venation as in Osten-Sacken's figure of *alpina*¹ with these exceptions: Apex of auxiliary vein at one-fourth of distance from base of second vein to marginal crossvein, small crossvein opposite or beyond the marginal crossvein; length 9 to 10 mm. A specimen of each sex collected June 25 and 26, 1901, by Mr. H. S. Barber.

Habitat.—Hot Springs, Yavapai County, Arizona.

Type.—Cat. No. 6154, U.S.N.M.

This European genus has not heretofore been reported from this country. The present form agrees well with the original description of this genus, except in the venation and the form of the claspers of the male.

Family CULICIDÆ.

CULEX BIMACULATUS, new species.

Bright yellow, the apices of the palpi and of the proboscis, also the antennæ except the bases, dark brown, a large black spot above insertion of each wing, apices of femora black, tarsi changing into brown toward the apices; bristly hairs and scales of head and body bright yellow, mesonotum highly polished; tarsal claws large, the front and middle ones toothed, the hind ones simple; wings hyaline, strongly tinged with yellow along the costa, lateral scales of the veins very small, interspersed with very elongate, narrow ones, petiole of first submarginal cell nearly as long as that cell, crossvein at apex of second basal cell nearly its own length from the one at apex of first basal cell; length, 5 mm. A female specimen collected June 16 by Mr. C. H. T. Townsend.

Habitat.—Brownsville, Texas.

Type.—Cat. No. 6259, U.S.N.M.

CULEX FLETCHERI, new species.

Head black, scales of occiput narrow, golden brown, on each side a patch of broad, appressed yellow ones, antennæ brown, the first joint and bases of the second and third yellow, palpi yellowish brown, proboscis black, the median portion brown; body black, metanotum brownish yellow, scales of thorax golden brown, the bristly hairs and those on the scutellum golden yellow, abdomen wholly covered with pale yellow scales; femora yellow, the apices and tibiæ blackish, the scales mixed white, yellow and black, not forming distinct bands; tarsi black, the bases yellowish brown, a band of white scales at bases of the three median joints on the front and middle tarsi, of the last four joints of the hind ones, claws very large, toothed; wings hyaline, veins yellow, scales sparse, small, those near base of wings chiefly yellowish,

¹ Monographs Diptera N. Am., IV, pl. 1, fig. 9.

the others brown, the lateral ones on first four veins and upper branch of the fifth very narrow and elongate, petiole of first submarginal cell about half the length of that cell, crossvein at apex of second basal cell about its length from the one above it; halteres yellow, the knobs brown; length, 6 mm. Two females collected by Dr. James Fletcher, for whom this unique species is named.

Habitat.—Carnduff, Assiniboia, British America

Type.—Cat. No. 6255, U.S.N.M.

CULEX SQUAMIGER, new species.

Head and its members black, middle of proboscis brownish, scales of occiput mixed golden and pale yellow, many black ones along the eyes, palpi black scaled, those at base, before the middle and at apex white; body black, scales of middle of mesonotum golden brown, those along the sides and on the pleura pale yellow, bristly hairs of thorax mostly black, those of scutellum chiefly yellow; scales of abdomen black, a large patch at base of each segment and several scales scattered over the remainder pale yellow, scales of venter pale yellow; femora and tibiae brown, the scales mixed black and yellow, not forming distinct bands, posterior side of the femora yellow and yellow scaled; tarsi black, the scales mixed black and yellow, a band of whitish scales at bases of the last four joints, claws toothed; wings hyaline, veins yellow, densely covered with rather broad mixed brown and whitish scales and with many very narrow ones in the apical third of the wing, petiole of first submarginal cell about two-thirds as long as that cell, crossvein at apex of second basal cell less than its length from the one above it; halteres yellow, the knobs marked with brown; length, 5 mm. Four female specimens.

Habitat.—Palo Alto (V. L. Kellogg), and San Lorenzo (G. Eisen), California.

Type.—Cat. No. 6256, U.S.N.M.

Family CHIRONOMIDÆ.

CERATOPOGON GLABER, new species.

Black, knob of halteres white, abdomen yellowish brown, scutellum and legs yellow, apices of hind femora, of all tibiae and joints of tarsi, also an annulus near middle of front tibiae, black, bases of front femora and an indistinct annulus beyond the middle pale brownish; eyes narrowly separated on the front, mesonotum opaque, whitish pruinose and with a brown median vitta, abdomen spatulate, somewhat opaque, narrow hind margins of the segments yellowish; legs slender, not spinose, first joint of hind tarsi nearly twice as long as the second, the last one nearly twice as long as the fourth, the claws large and of an equal size; wings bare, whitish, third vein reaching to six-sevenths

length of wing, separated from the first and not connected with it by a crossvein, apex of first near one-third length of third, fourth forks at small crossvein; length, 2 mm. Two female specimens collected by Mrs. Annie T. Slosson.

Habitat.—Biscayne Bay, Florida.

Type.—Cat. No. 6155, U.S.N.M.

CERATOPOGON INERMIS, new species.

Black, the antennæ and legs dark brown, the palpi, scutellum, halteres, and tarsi yellow; eyes rather widely separated on the front, mesonotum opaque, on the sides gray pruinose; femora slender, without spines, first joint of hind tarsi nearly twice as long as the second, last joint over three times as long as the fourth, without spines, claws large and of an equal size, no empodia; wings hyaline, bare, third vein separated from the first, ending near five-sixths length of wing, fourth vein forking slightly beyond the small crossvein; length, nearly 1 mm. A female specimen collected June 27 by Mr. H. S. Barber.

Habitat.—Hot Springs, Yavapai County, Arizona.

Type.—Cat. No. 6156, U.S.N.M.

CERATOPOGON EXILIS, new species.

Black, the mouth parts, broad margin of scutellum, legs and halteres light yellow; plumosity of antennæ whitish, mesonotum polished, legs slender, without spines, first tarsal joint about twice as long as the second, the last two of nearly an equal length, claws small, of an equal size, empodia large; wings hyaline, bare, third vein contiguous to the first, ending near two-thirds length of wing, apex of first vein near middle of the third, fourth vein forking slightly beyond the small crossvein; length, 1 mm. A male specimen collected May 15 by Mr. H. S. Barber.

Habitat.—Washington, District of Columbia.

Type.—Cat. No. 6157, U.S.N.M.

CERATOPOGON STIGMALIS, new species.

Black, the knobs of halteres light yellow, legs brown, both ends of the tibiae and whole of tarsi except apices of the joints yellow; eyes contiguous, mesonotum apparently subopaque (injured), legs slender, not spinose, first joint of hind tarsi about twice as long as the second, the fifth twice as long as the fourth, not spinose below, claws on all tarsi unequal in size, the longest almost as long as the last tarsal joint; wings hyaline, bare, third vein considerably thickened, ending near three-fifths length of wing, connected to the first by a crossvein, apex of first vein near three-fourths length of the third, costa emarginate at apex of the latter, lower branch of fourth vein obliterated except

toward its apex; length, 1 mm. A female specimen collected August 8 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6158, U.S.N.M.

CERATOPOGON PILOSUS, new species.

Head black, face yellowish brown, mouth parts and antennæ brown, first joint of the latter yellow, eyes contiguous, mesonotum brownish yellow, opaque, its hairs yellow, scutellum and middle of metanotum brown, pleura yellow, abdomen dark brown, bases of the segments and the venter yellow, legs yellow, not spinose, bearing many very long hairs, first tarsal joint slightly shorter than the second, the last two subequal in length; claws minute, of an equal size, empodia large; wings hyaline, wholly covered with brown hairs except those along basal half of costa and a patch at apex of third vein, which are light yellow, third vein contiguous to the first, ending at middle of length of wing, apex of first vein near two-thirds length of the third, fourth vein forking slightly beyond the small crossvein; halteres yellow; length, 1.5 mm. A female specimen collected May 3 by Mr. H. S. Barber.

Habitat.—Washington, District of Columbia.

Type.—Cat. No. 6159, U.S.N.M.

CERATOPOGON ANCORUS, new species.

Head yellow, upper half of occiput black, antennæ brown, the joints except the last one only slightly longer than broad; thorax and scutellum light yellow, mesonotum somewhat polished and marked with a large black spot, which is prolonged anteriorly in the middle and posteriorly at each hind angle, extending the entire length of the mesonotum; abdomen brown, the narrow sutures and the venter yellow; legs yellow, not spinose, first tarsal joint nearly twice as long as the second, last two joints subequal in length, claws minute and of an equal size; wings hyaline, almost wholly but sparsely covered with hairs, third vein contiguous to the first and to the costal vein, ending near middle of length of wing, fourth vein forking slightly beyond the small crossvein; halteres light yellow; length, nearly 1 mm. A female specimen collected by Mrs. A. T. Slosson.

Habitat.—Biscayne Bay, Florida.

Type.—Cat. No. 6160, U.S.N.M.

CERATOPOGON BELLUS, new species.

Head black, upper part of occiput silvery pruinose, antennæ yellow, the apices brown, plumosity yellow; body black, upper half of pleura and outer margins of scutellum except at the apex whitish; mesonotum opaque, gray pruinose, and marked with many brown dots arranged in longitudinal rows, the front end silvery pruinose and

marked with a few brown dots, abdomen partly light gray pruinose; legs slender, not setose, whitish, femora with a broad median and a narrow apical brown band, tibiae with a broad median brownish band and a narrow one at each end, first joint of hind tarsi over twice as long as the second, the third and fourth subequal in length and scarcely longer than broad, the fifth nearly twice as long as the fourth, claws rather large and of an equal size; wings bare except along the apical margin, hyaline, marked with eight black dots, situated as follows: just before small crossvein, below middle of fifth vein, before apex of each of its branches, beyond base and before apex of lower fork of fourth vein, before apex of upper fork of this vein, and at apex of third vein, the latter slightly beyond middle of length of wing, third vein contiguous to the first except toward its apex, tip of first vein near four-fifths of the third, fourth vein forks considerably beyond the small crossvein; halteres whitish, a black dot at base of the knob and another at its apex; length, 1 mm. A male specimen collected May 17 by Mr. H. S. Barber.

Habitat.—Washington, District of Columbia.

Type.—Cat. No. 6161, U.S.N.M.

CERATOPOGON SQUAMIPES, new species.

Black, knobs of halteres whitish, legs dark brown, the knees yellowish; eyes contiguous, mesonotum opaque, covered with appressed yellow hairs and with longer erect brown ones; legs rather slender, not spinose, bearing many long hairs; tibiae on the outer side bearing several lanceolate flattened bristles, first tarsal joint slightly shorter than the second, last two joints subequal in length; claws small, equal, empodia small; wings hyaline, wholly covered with hairs which are brown except a patch of yellowish ones at apex of third vein, this vein contiguous to the first, ending at middle of length of wing; apex of first vein near three-fourths length of the third, fourth vein forking considerably before the small crossvein; length, 1 mm. Three females collected August 14 and 19 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6162, U.S.N.M.

HETEROMYIA PRATTII, new species.

Head reddish brown, eyes rather widely separated on the front, antennae brown, the first joint and bases of several of the succeeding ones yellow, joints beyond the first noticeably longer than broad, thorax almost bare, black, the humeri and prothorax reddish brown, the sides, pleura, and metanotum sometimes reddish yellow, mesonotum somewhat polished, finely aciculate, not pruinose, prolonged anteriorly in a short spine, scutellum reddish brown, abdomen dark brown, hind margins of the first five segments yellow, somewhat polished, not

whitish pruinose except on the last two segments; legs reddish and brown, apices of middle and hind femora reddish yellow, tarsi light yellow, apices of joints and whole of fourth joint of hind ones brown, last joint of front ones white, the ends brown, front femora greatly thickened, spinose on under side, other femora and the tarsi not spinose, middle femora slender, hind ones considerably thickened toward the apices, first joint of front and middle tarsi over twice as long as the second, fourth joint less than half as long as the fifth, claws small, subequal in size, first joint of hind tarsi only slightly longer than the second, the fourth slightly over half as long as the fifth, the claws very unequal in size, the inner one about six times as long as the outer, almost as long as the last tarsal joint; wings bare, hyaline, a brown fascia extending from middle of first section of fourth vein almost to the hind margin of the wing, also a large brown spot reaching length of third vein and extending to apices of forks of fifth vein, leaving a hyaline spot below middle of third vein and in apex of fourth posterior cell; third vein connected with the first by a crossvein, reaching four-fifths length of wing, apex of first vein slightly before middle of the third, fourth vein forking slightly before the small crossvein; halteres whitish; length, 4 mm. Four females collected June 9 and 22 by Mr. F. C. Pratt, for whom the species is named.

Habitat.—St. Elmo, Virginia.

Type.—Cat. No. 6163, U.S.N.M.

TANYPUS STELLATUS, new species.

Yellowish brown, antennæ except the basal joint pale yellow, abdomen blackish, a whitish ring at three-fourths the length of each femur, tibiæ except each end, and tarsi except apices of the joints, light yellow, halteres yellow; mesonotum thinly gray pruinose; wings covered with brown hairs, whitish hyaline, marked over nearly the entire surface with many brown spots, several of which are confluent and inclose small whitish spots; costal cell except at its apex brown; first vein near its apex connected with the second by an oblique crossvein, fifth vein forks a short distance beyond the crossvein; length, 2 mm. A female specimen.

Habitat.—Texas.

Type.—Cat. No. 6164, U.S.N.M.

TANYPUS DISCOLOR, new species.

Yellowish brown, antennæ, scutellum, large portion of abdomen, legs except apices of femora and tibiæ, also the halteres, yellow; mesonotum grayish pruinose, most dense at the humeri and in front of scutellum; wings whitish hyaline, two crossbands and the apex largely brown; the first band is on a line with the humeral crossvein,

and along the costa is broadly connected with the second band which is located at the small crossvein; behind the fifth vein the second band is prolonged to meet the brown at apex of wing; the latter begins a short distance before the apices of the first and of the posterior branch of the fifth vein, and incloses a large hyaline spot in apex of the second and third posterior cells, also two yellowish costal spots; the brown along the costa comprises two spots of a darker color than the remainder of the brown at the apex of the wing, and between the first of these spots and the preceding brown band is a large yellow costal spot; wings densely covered with hairs, which are yellowish on the hyaline portions and brown on the dark parts; first vein a short distance before its tip connected with the second by an oblique crossvein, fifth vein forks slightly before the crossvein; length, 3 mm. A female specimen collected by Mrs. A. T. Slosson.

Habitat.—Franconia, New Hampshire.

Type.—Cat. No. 6165, U.S.N.M.

TANYPUS ALGENS, new species.

Yellow, three vittæ on the mesonotum, the metanotum, spots on the pleura, and the sternum, brownish black; mouth parts, apices of femora, and bases of tibiæ brownish; mesonotum grayish pruinose, the vittæ somewhat polished; wings covered with hairs, hyaline, crossed at the middle by a faint brownish band which extends from small crossvein halfway to the wingtip; first vein near its apex connected with the second by an oblique crossvein, fifth vein forks slightly before the crossvein; length, 3 mm. A female specimen collected July 9 by Prof. Trevor Kincaid.

Habitat.—Popof Island, Alaska.

Type.—Cat. No. 6166, U.S.N.M.

TANYPUS BARBERI, new species.

Male.—Yellowish white, apices and a broad band at middle of antennæ, three vittæ on mesonotum, the metanotum, spots on the pleura and the sternum, black; mouth parts, a band near bases of abdominal segments two to five, the whole of the following segments except their hind borders, also apices of femora, both ends of tibiæ, apices of first four joints of tarsi and whole of the last one, pale brownish; mesonotum opaque, gray pruinose; hairs of the antennæ pale yellowish; wings covered with hairs, hyaline, from the base to the small crossvein marked with three brown spots, one on the humeral crossvein and two behind the sixth vein; from small crossvein to wingtip are many, mostly isolated, brown spots; first vein near its apex connected with the second by an oblique crossvein, fifth vein forks slightly before the crossvein; length, 4 mm.

Female.—Like the male except that there is no black ring at middle

of antennæ, and the abdomen is dark brown, changing into yellow at the apex, the broad hind margins of the segments whitish; length, 3 mm. Four males and one female collected August 7 to 18 by Mr. H. S. Barber, for whom this fine species is named.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6167, U.S.N.M.

TANYPUS VENUSTUS, new species.

Head black, mouth parts brown, antennæ pale yellow, middle of joints of basal half and whole of apical joint brown, the hairs brown and yellowish; thorax black, opaque, mottled with grayish pruinose spots and lines, scutellum yellowish, its narrow base, stripe in middle, and nearly whole of underside dark brown; abdomen whitish, an interrupted band on the hind end of the first five segments and nearly the whole of the following segments, brown; legs yellow, two bands near apex of each femur, one near base of each tibia, also apices of tibiae and of joints of tarsi, brown; wings covered with hairs, hyaline, marked with about eleven brown spots located at extreme base of wing, on humeral crossvein, before middle of axillary cell, beyond middle of anal cell, on the central crossveins, near middle of first posterior cell, near apex of this cell, beyond middle of the second and of the third posterior cells, and at apices of the first and of the second veins; first vein near its apex connected with the second by an oblique crossvein, fifth vein forks slightly before the crossvein; length, 4 mm. A male specimen collected August 9 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6168, U.S.N.M.

TANYPUS PALLENS, new species.

Male.—Head brown, mouth parts and basal joint of antennæ concolorous, remainder of antennæ yellow, the hairs brown and whitish; thorax whitish, three vittæ on mesonotum, metanotum, spots on pleura and the sternum dark yellow; abdomen pale yellow, a band near base of segments two to five and nearly the whole of the following segments, pale brownish; legs and halteres whitish; wings hyaline, covered with hairs, first vein near its apex connected with the second by an oblique crossvein, fifth vein forks slightly before the crossvein; length 2.5 mm.

Female.—Abdomen wholly yellow, otherwise as in the male; length, slightly over 1 mm.

Two males and two females collected August 6 to 11 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico

Type.—Cat. No. 6169, U.S.N.M.

TANYPUS OCCIDENTALIS, new species.

Brown, the prothorax, a spot near each humerus, and the scutellum dark yellow, legs light yellow, halteres whitish; hairs of antennæ brown and yellow; wings hyaline, bare, first vein not connected with the second by a crossvein; fifth vein forks a short distance beyond the crossvein, the latter situated nearly its length before the small crossvein; length 4.5 mm. A male specimen.

Habitat.—Colorado.

Type.—Cat. No. 6170, U.S.N.M.

TANYPUS GUTTULARIS, new species.

Head and its members dark brown, joints two to four of antennæ, apices of the other short ones, and a space before the apex, light yellow, plumosity brown, changing into whitish at the apices; thorax black, opaque, gray pruinose, mesonotum marked with three indistinct dark vittæ, the middle one divided by a median black line prolonged to the scutellum, the latter light yellow; abdomen pale yellowish, first segment with two brown vittæ, the others with a black fascia before the middle of each, hairs of each segment consisting of an anterior whorl and a posterior transverse pair of clusters; legs light yellow, coxæ black, a brown band before apex of each femur and another beyond base of each tibia, apices of tibiæ and of tarsi brown, front tarsi ciliate with several rather long hairs; wings wholly covered with hairs, whitish hyaline, from base to small crossvein marked with four brown spots, one on humeral crossvein, two in anal cell and one before apex of first basal cell, passing over the crossvein at apex of second basal cell and reaching the wing-margin, where it is greatly extended and rather faint; a brown spot at base of third vein, apex of wing from slightly before tip of first vein grayish brown and containing several whitish hyaline drops; first vein near its tip connected with the second by an oblique crossvein; halteres whitish; length, 5 mm. Two males, collected May 10 by Mr. R. W. Doane.

Habitat.—Pullman, Washington.

Type.—Cat. No. 6171, U.S.N.M.

ORTHOCLADIUS CLEPSYDRUS, new species.

Black, the extreme bases of femora and of front tibiæ, also the other tibiæ except their apices, whitish; mesonotum polished, scutellum and dorsum of abdomen opaque, velvet-like; wings hyaline, each marked with an hourglass-shaped black spot extending from one-fourth length of wing almost to apex of upper branch of fifth vein, the constricted portion lying above the forking of the fifth vein, the basal expanded portion reaching from fourth vein nearly to hind margin of wing, the apical extending from third vein almost to hind margin of

wing; legs only pubescent, first joint of front tarsi about half as long as the tibiae, fourth tarsal joint rather slender and almost as long as the fifth; length, 1.5 mm. A female specimen collected August 7 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6172, U.S.N.M.

ORTHOCLADIUS PLATYPUS, new species.

Black, a large dull yellowish humeral spot, halteres, trochanters, and extreme bases of femora yellow; hairs of antennae dark gray, thorax opaque, grayish pruinose; tarsi only pubescent, the fourth joint dilated, emarginate at the apex, noticeably shorter than the fifth, first joint of front tarsi three-fourths as long as the tibiae; wings hyaline, small crossveins not darker than the adjacent veins, not clouded with brown, third vein beyond its middle slightly bowing toward the costa; length, 2.5 mm. A male specimen collected July 6 by Mr. H. S. Barber.

Habitat.—Flagstaff, Arizona.

Type.—Cat. No. 6173, U.S.N.M.

ORTHOCLADIUS POLITUS, new species.

Head yellow, antennae brown, its hairs yellowish brown; thorax yellow, three vittae on mesonotum, spot below each wing, the breast and metanotum black, mesonotum highly polished, scutellum brownish yellow, polished, its base opaque blackish; abdomen yellowish brown, becoming darker toward the apex; legs brown, trochanters and extreme bases of femora yellow, middle and hind tibiae and bases of their tarsi dull yellowish, legs only pubescent, fourth tarsal joint slender, as long as the fifth, first joint of front tarsi three-fourths as long as the tibiae; wings hyaline, small crossvein not darker than the adjacent veins, third vein almost straight; halteres yellow; length, 2.5 mm. A male specimen collected June 6 by Mr. H. S. Barber.

Habitat.—Washington, District of Columbia.

Type.—Cat. No. 6174, U.S.N.M.

CRICOTOPUS VARIPES, new species.

Head and its members black, hairs of antennae gray; thorax black, mesonotum highly polished, metanotum and scutellum opaque, velvet black; abdomen velvet black, the first two segments and hind margins of the following two polished yellow, genitalia yellow; femora black, the extreme bases and trochanters yellow, front tibiae and tarsi brown, the former with a broad median white band, other tibiae and tarsi yellow, their apices brownish, legs only pubescent, first joint of front tarsi two-thirds as long as the tibiae; wings whitish hyaline, small crossvein slightly darker than the adjacent veins, third vein almost

straight; halteres yellow; length, 2.5 mm. A male specimen collected May 6 by Mr. H. S. Barber.

Habitat.—Great Falls, Maryland.

Type.—Cat. No. 6175, U.S.N.M.

CHIRONOMUS PULCHRIPENNIS, new species.

Head and antennæ yellow, apical half of last joint of the latter and the mouth parts brown; thorax opaque, greenish yellow, mesonotum marked with a pair of lateral brown vittæ behind its middle, metanotum with a pair of brown spots which approach each other posteriorly; scutellum and abdomen green, the latter with the hind margins of the segments yellowish, bases of segments six to eight and nearly the whole of the following two brown; legs whitish, the knees black, this color extending nearly to the middle of the middle and hind femora, front tibiæ four-fifths as long as the first joint of their tarsi; wings whitish, the costal cell except its apex brown, a broad brown band crosses the wing, passing over the bases of the first and third posterior cells and prolonged along the hind margin nearly to the anal angle, apex of wings broadly brown from third vein to upper branch of the fifth; halteres white; length, 4 mm. A female specimen collected by Mrs. Annie T. Slosson.

Habitat.—Franconia, New Hampshire.

Type.—Cat. No. 6176, U.S.N.M.

CHIRONOMUS VARIPENNIS, new species.

Head and body dark brown, a large dull yellowish humeral spot, antennæ except the first joint yellow, the hairs gray; thorax opaque, largely gray pruinose, narrow hind margins of abdominal segments gray pruinose; femora brown, the ends narrowly and a band before the apex of each, yellow; front tibiæ very short, yellow, the bases brown, other tibiæ brown, an indistinct yellowish ring beyond the base; front tarsi wanting, the others yellow; wings whitish, marked with eleven brown spots as follows: Three in a row behind the fifth vein, one before middle and another in middle of apical margin of third posterior cell, one in base of first posterior cell, another in the cell below it, and a third midway between the latter and the base of this cell, one in middle and another in apex of first posterior cell, also a small one in apex of second posterior cell; halteres whitish; length, 3 mm. A male specimen collected August 14 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6177, U.S.N.M.

CHIRONOMUS ATRIMANUS, new species.

Head yellowish brown, antennæ yellow, the last joint and the mouth parts brown; thorax and scutellum black, highly polished; abdomen somewhat polished, black, the first segment yellow, hind margins of

three to six yellowish; legs yellow, front tibiae and their tarsi black, apices of femora, both ends of middle and hind tibiae, apices of joints of their tarsi and whole of the last two joints blackish, front tibiae four-fifths as long as the first joint of their tarsi; wings strongly tinged with yellow on the basal third, followed by a wide brown band extending from costa to fifth vein, remainder of wing hyaline; halteres yellow; length, 4.5 mm. A female specimen collected May 6, 1899, by Mr. C. F. Adams.

Habitat.—Kansas City, Missouri.

Type.—Cat. No. 6178, U.S.N.M.

CHIRONOMUS PALLIATUS, new species.

Head, mouth parts, and first joint of antennae dark brown, remainder of antennae livid, the hairs gray; thorax dark brown, mesonotum opaque, a broad, yellowish median vitta on the anterior half, and a widely separated pair of gray pruinose vittae on the posterior half; abdomen opaque, velvet black, its hairs yellow; legs yellowish white, front and middle femora except their apices, also bases of hind femora brownish, middle tibiae tinged with brown, front tarsi only pubescent, front tibiae three-fourths as long as their first tarsal joint, hind tibiae and their tarsi in the male densely clothed with rather long hairs; wings hyaline, slightly tinged with yellow, small crossvein not darker than the adjacent veins, third vein almost straight; halteres whitish; length, 2.5 to 4 mm. Three males and three females collected June 12 by Mr. H. S. Barber, except one of the females, which was collected by the writer in June.

Habitat.—Washington, District of Columbia.

Type.—Cat. No. 6179, U.S.N.M.

Family BIBIONIDÆ.

BIBIO TENUIPES, new species.

Black, the ridge behind each humerus yellow, spines of tibiae reddish brown; hairs of eyes black, those on under side of head, on body, and on upper side of front and middle femora chiefly light colored, those on remainder of legs chiefly black; spines of front tibiae very unequal in size, hind tibiae only slightly dilated, the outer side almost straight; wings hyaline, strongly tinged with yellow in the costal cell and with dark gray in the marginal and first basal cells, stigma and veins dark brown, bases of the fifth and sixth veins subhyaline, small crossvein scarcely one-fourth as long as the first section of the third vein; length, 5.5 mm. A male specimen collected June 5 by Mr. H. S. Barber.

Habitat.—Williams, Arizona.

Type.—Cat. No. 6180, U.S.N.M.

SCATOPSE VARICORNIS, new species.

Head and body black, mesonotum somewhat polished, antennæ about as long as the head and thorax, black, joints three to six bright yellow, apex of the last joint with a white reflection, joint three slightly longer than wide, the succeeding joints becoming successively shorter except the last one; legs dark brown, extreme ends of femora, apices of tibiæ, and whole of tarsi yellow, broad bases of tibiæ white; wings grayish hyaline, veins brown, apex of third vein near three-fourths length of wing, penultimate section of fourth vein about two-thirds as long as the upper fork of this vein, the forks gradually diverging from each other for a short distance, at which point the upper fork is strongly bowed upward, then extends nearly parallel with the lower one nearly to the wing-margin, where they diverge rather strongly from each other, fifth and sixth veins distinct, the latter strongly sinuous; length, 1.5 mm. A female specimen collected by Mr. Th. Pergande.

Habitat.—Washington, District of Columbia.

Type.—Cat. No. 6181, U.S.N.M.

Family SIMULIDÆ.

SIMULIUM FULVUM, new species.

Male.—Head and its members dark brown, occiput covered with rather long golden-yellow hairs, thorax reddish yellow, opaque, sides of scutellum and mesonotum in front of it bearing many rather long golden-yellow hairs; abdomen dark brown, opaque, on each side of the base is a large cluster of golden-yellow hairs more than half as long as the abdomen; legs dark yellow, apices of tibiæ and whole of tarsi pale brown; halteres dark yellow; wings hyaline, veins along costa brown, the others nearly hyaline.

Female.—Differs from the male as follows: Head, except upper part of occiput and the front, dark yellow, base of antennæ also yellow, hairs of occiput short and sparse; abdomen yellowish brown or dark yellow, usually changing into brown at the apex, the hairs at its base less than one-third as long as the abdomen; tarsi and tibiæ usually yellow.

Length, about 3 mm. One male and ten females.

Habitat.—Bear Paw Mountains, Montana (September 3, H. G. Hubbard); Custer County, Colorado (T. D. A. Cockerell); Mount Cheam (August 7, J. Fletcher), Lowe Inlet (June 3, T. Kincaid) and Laggan (H. F. Wickham), British Columbia; Sitka (June 16), Virgin Bay (June 26), and Kukak Bay (July 4, T. Kincaid), Alaska.

Type.—Cat. No. 6182, U.S.N.M.

I formerly mistook this species for Walker's *ochraceum*, but the latter, besides being considerably smaller, has whitish pruinose vittæ on the mesonotum and bicolorous middle and hind tarsi.

SIMULIUM VIRGATUM, new species.

Male.—Head and body black, antennæ and mouth parts dark brown, thorax gray pruinose, mesonotum marked with a narrow median and laterally with a very broad velvet black vitta (viewed directly from above), mesonotum sparsely covered with short, appressed hairs; abdomen on first six segments opaque, velvet black, a large silvery white spot on each side of the second and sixth segments, venter near each side with an interrupted yellow vitta on segments three to seven, composed of appressed hairs, on each side of base of abdomen is a large cluster of yellow hairs, and a smaller cluster on each side of segments three to five; femora and front tibiæ yellow, their apices brown, middle tibiæ brown, a yellow ring beyond the base, hind tibiæ brown, the extreme base yellowish; tarsi black, broad base of first joint and extreme base of the second on the middle and hind tarsi light yellowish; wings hyaline, veins along the costa yellowish brown, the others nearly hyaline; halteres yellow.

Female.—Differs from the male as follows: Vittæ of mesonotum brownish, the median vitta dilated posteriorly, wider than either of the lateral ones; viewed from in front the mesonotum appears whitish pruinose and with two velvet black vittæ; abdomen on first five segments and sides of the sixth opaque, gray pruinose, and with a velvet black fascia at bases of three to six, broadly interrupted on six, the middle of which and the portion of the abdomen beyond it is very thinly pruinose and of a dark brown color.

Length, nearly 3 mm. Two males and two females collected August 4 to 14 by Mr. H. S. Barber.

Habitat.—Las Vegas Hot Springs, New Mexico.

Type.—Cat. No. 6183, U.S.N.M.

SIMULIUM GLAUCUM, new species.

Male.—Head and body black, face gray pruinose, thorax bluish gray pruinose, mesonotum marked with a narrow median and slightly wider lateral black vittæ, broad lateral margins when viewed from behind silvery white, a pair of large, subquadrate silvery spots on the front end separated by the median black vitta, which is here greatly dilated; abdomen velvet black, sides of segments two and five to nine silvery, middle of dorsum of four also silvery; venter almost wholly silvery; femora and tibiæ brown, bases of tibiæ yellow, anterior side of front ones largely silvery; tarsi black, broad base of first joint of the middle and hind ones whitish; wings hyaline, veins along the costa yellowish brown, the others nearly hyaline; halteres yellow; length, 2.5 mm. A single specimen collected April 8, 1898, by Mr. C. F. Adams.

Habitat.—Kansas City, Missouri.

Type.—Cat. No. 6184, U.S.N.M.

Family STRATIOMYIDÆ.

AOCHLETUS OBSCURUS, new species.

Black, a yellow interrupted fascia on upper part of face, first two joints of antennæ and a short vitta above insertion of antennæ reddish brown, halteres yellow, base of first joint of each tarsus yellowish; upper three-fourths of front somewhat opaque, densely punctured and sparsely covered with short appressed whitish hairs, the lowest fourth nearly wholly occupied by a transverse pair of highly polished gibbous spots; face and cheeks, except the narrow gray pruinose orbits, somewhat polished and covered with appressed whitish hairs; antennæ much shorter than the head, very robust, the complex third joint larger than the remainder of the antennæ, composed of three annuli of which the first two are broader than long, the third about one-third longer than broad, tapering on its apical half, slightly longer than the apical style which is composed of three joints of nearly an equal length; thorax and scutellum nearly opaque, scabrous and sparsely covered with short appressed yellowish hairs; abdomen somewhat opaque, its hairs very short, black, those on sides of first segment and on hind angles of the second, third, and fourth rather long and yellowish; wings grayish hyaline, subcostal cell and apex of costal brown, stigma and veins brown; length, 9 to 10 mm. Two female specimens.

Habitat.—Los Angeles County, California (D. W. Coquillett); and Sulphur Spring Valley, Arizona (June 6, H. G. Hubbard).

Type.—Cat. No. 6185, U.S.N.M.

EUPARYPHUS TAHOENSIS, new species.

Head black, lateral margins of occiput, a pair of oblique spots on middle of front near the eyes and a pair of smaller ones on lower part of face, yellow; very narrow orbits of face and cheeks, and broad sides of occiput on the lower half, white pruinose; antennæ brown, the second joint largely yellowish brown; thorax black, a yellow vitta on either side of middle of mesonotum, a second near the lateral margin broadly interrupted behind the suture and greatly expanded at its posterior end, also a yellow vitta extends from humerus to base of wing, and one on upper part of the sternopleura; scutellum yellow, the basal two-fifths black, spines yellow, their apices brown; abdomen black, the margin and an interrupted fascia on the posterior part of the fourth segment, yellow; venter black, a large median yellowish spot on the second and third segments; femora black, the apices, tibiae and tarsi yellow, a brownish ring near middle of each hind tibia; wings hyaline, veins yellowish, those issuing from the discal cell nearly colorless, third vein simple; halteres yellow; length, 6 mm. A female specimen collected by Mr. H. G. Hubbard.

Habitat.—Lake Tahoe, California.

Type.—Cat. No. 6186, U.S.N.M.

EUPARYPHUS APICALIS, new species.

Head yellow, center of occiput, an ocellar dot, a transverse pair of oval spots below middle of front and a vitta on each side of face, black; a brownish spot near center of face; front with a paler yellow spot at the middle of the sides next the eyes, another above the antennae and one back of the ocelli; head polished, the narrow orbits of the face and cheeks and broad sides of occiput on the lower half white pruinose; antennae black, the first two joints yellow; thorax black, a yellow vitta each side of middle of mesonotum, a broader one extends from humerus to the hind angle and incloses a black spot behind the suture, another along upper edge of pleura and a short one on upper part of sternopleura; scutellum yellow, the narrow basal angles and tips of spines brown; abdomen at extreme base yellow, followed by black, which area is greatly narrowed on the posterior half of the second segment and still more so on the anterior half of the third, ending at the center of this segment, remainder of abdomen reddish yellow, the margin pale yellow, a black dot in middle of front edge of the fourth segment; venter yellow, the first segment black; legs yellow, joints three and four of the tarsi brownish; wings hyaline, stigma and veins yellowish brown, third vein forked; halteres yellow; length, 7 mm. A female specimen collected by Mr. A. Koebele.

Habitat.—Siskiyou County, California.

Type.—Cat. No. 6187, U.S.N.M.

EUPARYPHUS CRUCIGERUS, new species.

Head black, the broad orbital margins of occiput, vitta on each side of front, large spot on which the antennae are inserted and large spot on each lower corner of face, connected along the eye with that on side of front, yellow; antennae brown, the second joint and base of third yellowish; thorax black, a vitta on either side of middle of mesonotum, a broader one extending from each humerus to the hind angle, interrupted behind the suture, another on upper edge of pleura in front of wing, and one on upper part of sternopleura, also a dot above hind coxa, yellow; scutellum yellow, the extreme base black; abdomen black, the margin, a spot in middle of first segment and an interrupted fascia on the posterior part of the third and fourth, yellow; venter yellow, the broad lateral margins and nearly the whole of the first and fifth segments black; legs yellow, femora except the apices, and a median ring on the hind tibiae black; wings hyaline, stigma and veins yellow, veins issuing from discal cell nearly colorless, third vein simple; halteres yellow; length, 7 mm. Five females.

Habitat.—Colorado.

Type.—Cat. No. 6188, U.S.N.M.

EUPARYPHUS ATRIVENTRIS, new species.

Differs from *E. crucigerus* as follows: Antennæ not inserted on a yellow spot, no yellow spots at lower corners of face, but the rather broad orbital margins yellow and covered with a whitish pruinosity, a yellow fascia on lower edge of front connected with the yellow vittæ on sides of front, no yellow spot in middle of first abdominal segment, the yellow fascia on the third segment three times interrupted, venter, except the margin, wholly black; length, 5 mm. A female specimen collected July 17, 1877.

Habitat.—Greeley, Colorado.

Type.—Cat. No. 6189, U.S.N.M.

EUPARYPHUS AMPLUS, new species.

Head black, the frontal triangle, broad sides of face and three vittæ near its middle, also the lower portion of occipital orbits, yellow; antennæ brown, toward the base yellowish, mouth parts yellow; thorax black, a widely separated pair of dorsal vittæ, a vitta extending from each humerus to slightly beyond the transverse suture, a large subtriangular spot on each posterior corner, a narrow vitta on upper edge of pleura, expanding in a large spot in front of wing, a spot above front coxa, a vitta on upper part of sternopleura and one or two small spots beyond its posterior end, yellow; scutellum yellow, the basal third black; abdomen black, a fascia on first segment, small, rounded spot in outer hind angles of the second, outer margin of remainder of abdomen and an oblique spot in each outer hind angle of the third and fourth segments extending at least one-third of the width of the abdomen, yellow; venter yellow, the first segment, lateral portions of the second and an interrupted fascia at bases of the third and fourth, black; coxæ black, their apices yellow, femora yellowish brown, their ends, the tibiæ and tarsi wholly yellow; wings hyaline, the costa and veins on costal half yellow, the others nearly hyaline, third vein forked; halteres yellow; length, 8.5 mm. A male specimen collected June 17, 1898, by Mr. E. J. Osler.

Habitat.—Chimney Gulch, Colorado.

Type.—Cat. No. 6190, U.S.N.M.

Family BOMBYLIDÆ.

BOMBYLIUS RECURVUS, new species.

Male.—Head and body black, front and face opaque, gray pruinose; face along the oral margin rather densely covered with pale yellow hairs mixed above with many brown ones, those on remainder of face sparse, brown, hairs of first two joints of antennæ and on the front also brown; third joint of antennæ only slightly dilated near the base;

proboscis about as long as the body; hairs of body pale yellow, a large cluster of brown ones at sides of third abdominal segment connected by a cross-band of short brown hairs which is prolonged along middle of dorsum, terminating in a small cluster at tip of abdomen; legs dark brown, under side of hind femora bearing several bristles; wings smoky brown at base, gradually changing to hyaline at the apex, second vein strongly recurved at its apex, its extreme apex nearer base of wing than the preceding part of the recurved portion, the marginal cell strongly widening from base to apex, penultimate section of lower branch of third vein from one-fourth to one-half as long as the last section, small crossvein slightly beyond middle of discal cell; halteres yellow.

Female.—Like the male except that the hairs of the face are mostly pale yellow, the short hairs of the front also of this color, and there are many brown hairs on the mesonotum.

Length, 6 to 8 mm. Two males and two females.

Habitat.—San Bernardino County (April, A. Koebele), and San Diego County (April, D. W. Coquillett), California.

Type.—Cat. No. 6191, U.S.N.M.

GERON SIGMA, new species.

Male.—Black, the halteres brown, the knobs partly or wholly pale yellow; third joint of antennae less than twice as long as the first two, elongate-ellipsoidal, about three times as long as its greatest width, a distinct notch on upper edge a short distance before the tip; face and frontal triangle grayish pruinose; proboscis about twice as long as length of head, palpi almost reaching its middle; upper side of body opaque, velvety, a transverse pair of gray pruinose spots on front end of thorax; wings hyaline, stigma pale brown, branches of third vein as long as the preceding section, the upper branch, except at its extreme base, almost straight, in consequence of which the base of the second submarginal cell is rather pointed, hind crossvein strongly bent S-shaped, small crossvein near one-third length of discal cell.

Female.—Same as the male, with these exceptions: Front on the lower edge light gray pruinose, the remainder, like the mesonotum, dark grayish black, no gray pruinose spots on the front end of the latter, scutellum light gray pruinose, abdomen brownish, the narrow hind margins of the segments light gray pruinose, stigma of wings pale grayish.

Length, 2.5 mm. Three males and seven females.

Habitat.—Alabama (C. F. Baker), North Carolina, and Colorado (H. K. Morrison). Three of the Alabama specimens were received for naming from Mr. C. W. Johnson, of Philadelphia, and have been returned to him again.

Type.—Cat. No. 6192, U.S.N.M.

Family SCENOPINIDÆ.

PSEUDATRICHIA FLAVICEPS, new species.

Head dark yellow, the occiput except the sides and an emargination behind the ocelli, an ocellar spot, and spot in middle of lower half of front, black; antennæ and mouth parts black; thorax and scutellum polished, black, a large yellow spot at inner side of each humerus, an interrupted white line below each wing, hairs of mesonotum short, depressed, brassy yellow, arranged in stripes, those of pleura white; abdomen polished, bronze black, hind margins of segments two to six, white; legs black, the knees yellow, this color most extended on the front pair; wings hyaline, veins brown, apex of second vein close to tip of first, halteres pale brown, marked with a few white streaks and dots; length, 6 mm. Two females collected July 15 by Mr. H. S. Barber.

Habitat.—Williams, Arizona.

Type.—Cat. No. 6193, U.S.N.M.

PSEUDATRICHIA PILOSA, new species.

Black, polished, dorsum of abdomen bronze color, hind margins of segments two to five white, halteres white, a blackish spot on upper side of each knob; thorax and femora covered with rather long nearly erect white hairs mixed with many black ones on the mesonotum; wings hyaline, veins brown, second vein ending close to apex of the first; length, 4 mm.—Two males collected by Mr. H. S. Barber.

Habitat.—Williams (July 7) and Hot Springs (June 28), Arizona.

Type.—Cat. No. 6194, U.S.N.M.

Family EMPIDÆ.

MYTHICOMYIA SCUTELLATA, new species.

Black, a spot above antennæ, the oral margin, corners of thorax and a vitta connecting the two on each side, a vitta on lower part of pleura, greater part of scutellum, venter, sides and hind margins of abdominal segments, halteres and knees light yellow, tarsi and apical portion of tibiae brown; face opaque, gray pruinose, front, mesonotum and abdomen polished; wings hyaline, the veins brown; third joint of antennæ oval, less than twice as long as broad, slightly over twice as long as the style; hairs of body very short and sparse; length, 1.5 mm. Seven females collected June 6 by Mr. H. S. Barber.

Habitat.—Williams, Arizona.

Type.—Cat. No. 6195, U.S.N.M.

MYTHICOMYIA PICTIPES, new species.

Differs from *scutellata* as follows: Femora and tibiae yellow, the former with a black vitta on upper side, the latter with a brown vitta

on the outer side; front and body opaque, mesonotum densely gray pruinose; third joint of antennae narrow and elongate, about four times as long as broad; length, 2.5 mm. Two females collected May 29 by Mr. H. S. Barber.

Habitat.—Williams, Arizona.

Type.—Cat. No. 6196, U.S.N.M.

RHAMPHOMYIA ALBATA, new species.

Male.—Black, the knobs of halteres, also the hairs and bristles, white; eyes contiguous, third antennal joint elongate lanceolate, nearly five times as long as the style, proboscis slightly shorter than height of head; mesonotum and abdomen polished, not pruinose, abdomen compressed, hypopygium rather small, central filament free except its apex, not fractured nor flexuous, hairs of hypopygium rather short and sparse; scutellum bearing four bristles; legs slender, nearly bare, hind tibiae bearing several short bristles on the outer side, first joint of hind tarsi considerably enlarged, over twice as thick as that of the front tarsi and with several short bristles on the upper side; wings hyaline, stigma grayish brown, sixth vein obliterated before reaching the wing margin.

Female.—With the exception of the sexual characters, like the male except that the apical portion of the wings beyond middle of discal cell is pale brown.

Length, 2.5 mm. Three males and five females collected May 29, June 2, 12, and 13, by Mr. H. S. Barber.

Habitat.—Williams, Arizona.

Type.—Cat. No. 6198, U.S.N.M.

Family CESTRIDÆ.

CUTEREBRA HISTRIO, new species.

Black, the abdomen steel-blue, apical portion of arista whitish; front somewhat opaque, very thinly grayish pruinose, the ocellar triangle and orbits polished, the latter marked with a gray pruinose spot near the middle and another at lower angle of front, a smaller spot near upper corner of facial depression, hairs of upper part of front chiefly black, on remainder largely white; face and cheeks densely gray pruinose, each side of face marked with four polished streaks, one of which is in lower part of facial depression, the other three extend inward from the eye, the upper one subtriangular and almost reaching the facial depression, the middle one almost reaching lower end of facial depression, then curving downward and extending parallel with the oral opening, reaching slightly farther backward than middle of cheek, the lowest streak joins the second near lower corner of facial depression, and a short distance from this junction it emits a broad but short branch toward the under side of the head; a velvet black streak on

either side of middle of facial depression, hairs of face and of cheeks white; mesonotum and scutellum opaque, bluish gray pruinose, the hairs black, a stripe of white ones above each wing, those of the pleura also white except a cluster of black ones near the upper edge; dorsum of first three abdominal segments polished, the sides, venter, and entire fourth segment densely gray pruinose but leaving several, mostly circular, polished spots; on bases of the second and third segments the gray pruinosity encroaches considerably on the dorsum. hairs of abdomen black; basal half of femora and tibiae largely, also extreme apices of tibiae, grayish pruinose, hairs black, a few white ones on upper side of middle femora and many on posterior side of front ones; wings and calypteres dark brown; length, 18 mm.; width of vertex, 3 mm.; width of head, 8 mm. A female specimen collected by Dr. A. Dugès.

Habitat.—Guanajuato, Mexico.

Type.—Cat. No. 6199, U.S.N.M.¹

Family TACHINIDÆ.

MEIGENIELLA, new genus.

Near *Cryptomeigenia* but the first vein beyond apex of auxiliary is distinctly bristly and the vibrissæ are nearer to the anterior edge of the oral margin. Head at vibrissæ much shorter than at base of antennæ, ocellar bristles directed obliquely forward, frontals in a single row each side, descending to base of third antennal joint, sides of face each about one-third as wide as the median depression, bearing a few short hairs, antennæ four-fifths as long as the face, the third joint nearly four times as long as the second, arista thickened on the basal fourth, the penultimate joint slightly longer than broad, facial ridges bristly on the lowest fourth, cheeks about one-fourth as wide as the eye height, eyes bare, proboscis short and robust, palpi clavate, well developed; first posterior cell open, ending at the wing tip, bend of fourth vein rounded, without an appendage, hind crossvein much nearer the bend than to the small crossvein, last section of fifth vein less than one-third as long as the preceding section; hind tibiae not ciliate with bristles. Type, the following species:

MEIGENIELLA HINEI, new species.

Head yellow, occiput and sides of front black, bluish gray pruinose, frontal vitta dark brown, face whitish pruinose, antennæ and base of

¹ *Cuterebra lepivora* Coquillett. Suspecting that the types of this species, a male and a female, were injured by "greasing," they were immersed for twenty-four hours in chloroform, and this had the effect of restoring most of the normal markings. The head of the male, instead of being "destitute of light-colored pollen," as described, has spots of this kind almost as in the male of *C. americana*, while the pollen of the face and cheeks of the female is whitish instead of being brownish, as stated in the original description.

arista yellow, remainder of arista dark brown, vertex two-thirds as wide as either eye, two pairs of proclinate orbital bristles, palpi yellow, proboscis yellowish brown; thorax and scutellum black, bluish gray pruinose, the former with four black vittæ, three pairs of postsutural dorsocentral bristles and three sternopleurals, scutellum bearing three marginal pairs; abdomen yellow, a broad black dorsal vitta, nearly wholly yellowish gray pruinose, first segment with marginal, the two following with marginal and discal, the fourth nearly wholly but sparsely covered with bristles; coxæ, femora, and tibiæ yellow, tarsi brown; wings hyaline, third vein bearing three bristles near the base, costal spine minute, calypteres whitish; length 7 mm. A female specimen collected May 29, 1899, by Prof. J. S. Hine, for whom the species is named.

Habitat.—Hanging Rock, Ohio.

Type.—Cat. No. 6200, U.S.N.M.¹

ADMONTIA LIMATA, new species.

Black, including the palpi; vertex four-fifths as wide as either eye, uppermost pair of frontal bristles directed outward, two pairs of orbital bristles, frontals descending slightly below base of antennæ, sides of face bearing many macrochaeta and bristly hairs not arranged in rows, face and sides of front whitish pruinose, two or three small bristles above each vibrissa, antennæ almost as long as the face, the third joint four times as long as the second, its lower front angle slightly produced in the form of a blunt tooth, arista rather long pubescent, thickened on the basal third, cheeks one-third as broad as the eye height; body polished, the humeri and bases of the second and third abdominal segments whitish pruinose, three sternopleural bristles, scutellum bearing four marginal pairs, the last pair cruciate, abdomen with discal and marginal bristles on each segment; front tarsi not dilated, their pulvilli elongated; wings subhyaline, second basal and anal cells yellowish, costal and marginal cells smoky brown, third vein bearing two bristles near the base; calypteres yellowish; length 4.5 to 5 mm. Ten males, collected by Prof. J. M. Aldrich.

Habitat.—Moscow, Idaho.

Type.—Cat. No. 6202, U.S.N.M.

¹*Alophora fenestrata* Bigot. The type was from Nevada, while the specimens referred to this species in my Revision of the Tachinidae, page 46, were from New Hampshire. A specimen from Moscow, Idaho, since received from Prof. J. M. Aldrich, agrees better with Bigot's original description, and probably belongs to the species he had before him; this specimen, however, belongs to the genus *Phoranthia*, and the wings have a much more vittate appearance than the New Hampshire specimens. The latter will therefore require a new name, for which *splendida* is proposed.

Type.—Cat. No. 6201, U.S.N.M.

PARADMONTIA, new genus.

Near *Admontia*, but the first vein bristly, first posterior cell closed far from the wing margin, etc. Head unusually short, nearly twice as high as long, slightly shorter at vibrissæ than at base of antennæ, ocellar bristles proclinate, frontals descending to apex of second antennal joint, sides of face each about one-sixth as wide as the unusually large facial depression, bearing two rows of macrochaetae, vibrissæ widely separated, inserted on a level with anterior edge of oral margin, ridges bristly on lowest fourth, antennæ of male as long as face, the third joint about eight times as long as the second, in the female about two-thirds as long as the face, the third joint three times as long as the second, arista bare, in the male thickened on the basal four-fifths, the penultimate joint twice as long as wide, in the female thickened on the basal three-fifths, the penultimate joint one and one-half times as long as wide, eyes sparsely hairy, cheeks as wide as the eye height, proboscis short and robust, palpi clavate: first vein bristly on the basal half, the third bristly nearly to the small crossvein, third vein ending close to the extreme tip of wing, first posterior cell closed, its petiole three-fourths as long as the hind crossvein, the latter nearer to small crossvein than to bend of fourth vein, this bend somewhat angular and sometimes with a short stump of a vein. Type, the following species:

PARADMONTIA BREVIS, new species.

Black, the palpi yellow: vertex about twice as wide as either eye, three pairs of orbital bristles; mesonotum light gray pruinose and marked with four black vittæ, three pairs of postsutural dorsocentral bristles, two sternopleurals, scutellum bearing three marginal pairs, the third pair diverging; abdomen very short and broad, bases of last three segments gray pruinose, the bristles very short, a marginal pair on the second and third segments, the fourth almost wholly covered; hind tibiæ not ciliate, front pulvilli of male rather short, front tarsi of female dilated, the pulvilli very short; wings hyaline, calypteres whitish; length, 3 mm. A specimen of each sex collected by Mrs. Annie T. Slosson.

Habitat.—Biscayne Bay, Florida.

Type.—Cat. No. 6203, U.S.N.M.

NEÆRA LONGICORNIS, new species.

Black, the base of the third antennal joint and the palpi yellow; vertex twice as wide as either eye, two pairs of orbital bristles, frontals descending to the arista, facial ridges only slightly arcuate, bristly almost to the lowest frontals, facial depression excessively broad, sides of face very narrow, antennæ almost as long as face, the third joint six

times as long as the second, arista thickened on the basal four-fifths, the penultimate joint nearly half as long as the last one; thorax gray pruinose, three pairs of postsutural dorsocentral bristles, two sternopleurals, scutellum bearing four marginal pairs, the second and fourth very small; abdomen polished, narrow bases of last three segments whitish pruinose, second segment bearing a discal pair and marginal row of bristles, third with a discal and a marginal row, fourth with three rows; tarsi not dilated; wings hyaline, the base tinged with yellow, third vein bearing a bristle near the base, hind crossvein slightly nearer small crossvein than bend of fourth vein, calypteres whitish; length, 4 mm. A female specimen collected August 4, 1896, by Prof. C. A. Sheldon.

Habitat.—Oswego, New York.

Type.—Cat. No. 6204, U.S.N.M.

This European genus has not heretofore been reported from this country; in the table of genera given in my Revision of the Tachinidae it would fall in with *Clausicella*, from which it will be distinguished by the bristly facial ridges.

CHÆTOPHLEPS POLITA, new species.

Black, including the palpi; vertex three-fourths as wide as either eye, no orbital bristles, frontals descending slightly below the arista, facial ridges ciliate nearly to lowest frontals, face in profile very convex, the sides below very narrow, about one-eighth as wide as the very large, subtriangular facial depression, antennæ almost as long as the face, the large third joint about six times as long as the second, arista thickened nearly to the middle, the penultimate joint slightly longer than broad, sides of front and face grayish pruinose, proboscis short and robust; mesonotum polished, three vittæ in front of the suture and the sides whitish pruinose, three pairs of postsutural dorsocentral bristles, two sternopleurals, scutellum bearing three long marginal pairs, the last pair diverging; abdomen polished, each segment bearing marginal, the last three also with short discal macrochaetæ; front claws and pulvilli very short, hind tibiae not ciliate; wings hyaline, first vein bearing three bristles on the apical third, the third bearing five near base, extending halfway to the small crossvein, hind crossvein midway between the small and the bend of the fourth, the latter arcuated, calypteres whitish; length, 3.5 mm. A male specimen collected by Prof. J. M. Aldrich.

Habitat.—Brookings, South Dakota.

Type.—Cat. No. 6205, U.S.N.M.

PELATACHINA LIMATA, new species.

Differs from my description of *pellucida*¹ as follows: Face yellowish gray pruinose, thorax marked with four black vittæ, abdomen pol-

¹ Revision of the Tachinidae, p. 65.

ished, basal portions of last three segments thinly whitish pruinose, wings yellowish brown at base and along most of the veins, third vein bearing three bristles near the base, first posterior cell closed slightly before the wingmargin, costal spine very large; length, 8 mm. A female specimen collected by Prof. J. M. Aldrich.

Habitat.—Lewiston, Idaho.

Type.—Cat. No. 6206, U.S.N.M.

PSEUDAPINOPS, new genus.

Near *Apinops*, but the palpi wanting. Head at vibrissæ noticeably shorter than at base of antennæ, vibrissæ on a level with anterior edge of oral margin, facial ridges bristly nearly to the middle, cheeks almost one-third as broad as the eye height, sides of face bare, at narrowest part about one-tenth as wide as the median depression, antennæ of male nearly as long as the face, the third joint three times as long as the second, in the female two-thirds as long as face, the third joint scarcely longer than the second, arista bare, thickened on the basal half, the penultimate joint slightly longer than broad, eyes bare, frontal bristles descending below middle of second antennal joint, ocellar bristles directed obliquely forward and outward, proboscis short and robust, third vein with a few bristles near the base, other veins bare, first posterior cell open, ending just before the wingtip, bend of fourth vein arcuate, without an appendage, hind crossvein midway between the small and the bend. Type, the following species:

PSEUDAPINOPS NIGRA, new species.

Black, the antennæ and proboscis dark brown; vertex one and one-third times as wide as either eye, front not pruinose, face thinly whitish pruinose; one pair of orbital bristles, uppermost pair of frontal bristles directed outward; body not pruinose, three pairs of post-sutural dorsocentral bristles, two or three sternopleurals, scutellum bearing three long marginal pairs, no discal bristles; abdomen depressed, ellipsoidal, the hairs very short and depressed, the bristles also short, none on dorsum of first two segments, a few marginal ones on the third and several on posterior half of the fourth; legs robust, bristles few and short, claws and pulvilli short; wings nearly hyaline, costal and marginal cells tinged with pale brown, calypteres whitish; length, 5 mm. Fifteen males and two females collected by Prof. J. M. Aldrich.

Habitat.—Moscow, Idaho.

Type.—Cat. No. 6207, U.S.N.M.

HYALOMYODES DORSALIS, new species.

Male.—Black, the mouth parts dark brown; eyes almost contiguous, the frontal vitta obliterated for a short distance; mesonotum and scu-

tellum somewhat polished, not pruinose; abdomen gray pruinose, the first segment, a streak in posterior corners of the second and third, a median spot on front end of the last three segments and a dot at base of each bristle and hair, polished black; wings hyaline, calypteres whitish; length, 3 mm.

Female.—Vertex one and one-half times as wide as either eye; body gray pruinose, a small brownish median spot on the last three abdominal segments and a brownish streak in the hind angles of the second and third, indistinct brownish dots at bases of the hairs and bristles; length, 4 mm.

A specimen of each sex collected by Prof. J. M. Aldrich.

Habitat.—Moscow, Idaho.

Type.—Cat. No. 6208, U.S.N.M.¹

OESTROPHASIA CALVA, new species.

Yellow, the thorax brownish yellow, a spot above the neck, and in the male a transverse row of three spots behind middle of mesonotum, black; abdomen in the male with a median spot on each segment and a streak at the hind angles of the last three, in the female with hind margins of first three segments and one to three spots on the fourth, black; vertex in male as wide as distance between the two posterior ocelli, only one row of about five bristly hairs outside of the frontals; in the female the vertex is slightly over twice as wide as either eye, one row of bristly hairs outside of the frontals, and outside of this a second row of four orbital bristles; thorax slightly, the abdomen highly, polished, hairs of abdomen short, depressed, first two segments with a marginal pair of bristles, third with a marginal row, the fourth nearly wholly covered on the apical half; wings whitish hyaline, the base to discal cell and in front of fourth vein to apex of first, yellowish brown, a brown crossband begins in apex of marginal cell and extends, greatly narrowed, over the hind crossvein where it turns basally along fifth vein, covering slightly over the apical half of the discal section; third vein bristly less than half way to small crossvein, first posterior cell closed at the wingmargin; length, 6 mm. One male and two female specimens.

Habitat.—Williams, Arizona (July 17, H. S. Barber); and Ottawa, Canada (W. H. Harrington).

Type.—Cat. No. 6209, U.S.N.M.

¹*Hyalomyodes triangulifera* has not been described in the female sex; the vertex is as wide as either eye, the body opaque, gray pruinose, that on the first abdominal segment very thin and not concealing the ground color, the hind margin of the second segment and a dot at base of each bristle and hair polished black.

Leucostoma neomexicana was not known to me in nature when the Revision of the Tachinidae was published; on page 69 it was given as a synonym of *senilis*, but it is evidently distinct, and will readily be recognized by the white pruinose last two abdominal segments.

OESTROPHASIA SETOSA, new species.

Female.—Differs from *calva* as follows: Mesonotum with a transverse row of three black spots behind the middle, fourth abdominal segment black on more than the apical half, base of first segment black in the middle of upper edge, a broad black dorsal vitta, passing over the broad black hind margins of the first three segments; second segment bearing a scattered median cluster of eight bristles which extends nearly to the middle of the length of the segment, third with a cluster of eight in front of the marginal row, the fourth covered except at the base; third vein bristly almost to the small crossvein; length, 6 mm. A female specimen collected by H. K. Morrison.

Habitat.—Colorado.

Type.—Cat. No. 6210, U.S.N.M.

EXORISTOIDES HARRINGTONI, new species.

Black, the face and apex of proboscis yellowish, first two joints of antennae and the palpi yellow; vertex one and one-half times as wide as either eye, one pair of orbital bristles and between each bristle and the frontals is an outwardly directed bristle, frontals descending to the arista, the latter thickened on the basal half, the penultimate joint shorter than broad, antennae nearly as long as the face, the third joint five times as long as the second, eyes sparsely hairy, cheeks one-third as wide as the eye height; thorax grayish pruinose, the vittae indistinct, three pairs of postsutural dorsocentral bristles, three sternopleurals, scutellum bearing four marginal pairs, the last pair cruciate; abdomen polished, the bases of the last three segments grayish pruinose, these segments bearing discal and marginal bristles; wings hyaline, a gray cloud at base of discal cell, a brown crossband extends from apex of first vein to slightly below the small crossvein; first vein wholly bristly, the third from its base to beyond apex of discal cell, first posterior cell closed and short petiolate, ending slightly before apex of wing, bend of fourth vein rectangular and with a short stump, hind crossvein nearer the small than to bend of fourth; calypteres whitish; length, 4 mm. A female specimen collected by Mr. W. Hague Harrington, for whom this fine species is named.

Habitat.—Ottawa, Canada.

Type.—Cat. No. 6211, U.S.N.M.

EXORISTA TRISETOSA, new species.

Black, including the palpi; vertex of male one and one-half, of female twice, width of either eye, two pairs of orbital bristles in female, frontals descending to the arista, antennae slightly shorter than the face, the third joint two and one-half times as long as the second, arista thickened to the middle, facial ridges bristly on the lower two-fifths, cheeks one-fifth as wide as the eye height; proboscis rather

slender, the labella small; thorax gray pruinose, marked with four black vittæ, three pairs of postsutural dorsocentral bristles, three sternopleurals, scutellum bearing four marginal pairs, the last pair directed backward; abdomen polished, bases of last three segments thinly gray pruinose, first segment with marginal, the following two also with discal, the last one nearly covered with rather long bristles; middle tibiæ each bearing two or three long bristles on the outer-anterior side, hind tibiæ somewhat unevenly ciliate on the outer-anterior side, wings hyaline, third vein with three or four bristles near the base, calypteres white; length, 5 to 7 mm. Seven males and one female collected August 26, 1895, by Prof. J. M. Aldrich.

Habitat.—Moscow and Lewiston, Idaho.

Type.—Cat. No. 6212, U.S.N.M.

NEMORÆA SETIGERA, new species.

Black, the face, palpi, and fourth abdominal segment yellow, apex of proboscis dark brown; vertex slightly narrower than either eye, two pairs of orbital bristles, frontals descending to the arista, sides of front on lower part, face and cheeks golden yellow pruinose, a few bristles above each vibrissa, cheeks one-fifth as broad as the eye height, antennæ slightly shorter than the face, the third joint very broad, twice as long as the second, arista thickened to the middle, the penultimate joint slightly longer than broad, proboscis rather slender, labella narrow; body slender, thorax gray pruinose, marked with four black vittæ, three pairs of postsutural dorsocentral bristles, three sternopleurals, scutellum bearing four marginal pairs, the last one the smallest, cruciate; abdomen thinly gray pruinose on the first three segments, the second and third bearing basal, discal, and marginal bristles; front tarsi distinctly dilated, middle tibiæ bearing four bristles on the outer-anterior side, hind tibiæ not ciliate; wings hyaline, crossveins not clouded, third vein bearing four bristles near the base, first posterior cell closed in the margin, hind crossvein near the bend of the fourth, the latter rectangular and with a long stump, calypteres white; length, 10 mm. A female specimen collected August 15, 1897, by Prof. J. S. Hine.

Habitat.—Medina, Ohio.

Type.—Cat. No. 6213, U.S.N.M.

PHOROCERA STERNALIS, new species.

Black, the scutellum except at base, and a spot on sides of second abdominal segment of male, yellow; vertex of male nearly as wide as, in the female one and one-fourth times as wide as, either eye, two pairs of orbitals in the female, frontals descending almost to the arista, the latter thickened on the basal half, the penultimate joint slightly longer than broad, antennæ almost as long as the face, the third joint in the male very broad, four times as long as the second, in the female three

times as long as the second, sides of front and face bluish gray pruinose, facial ridges bristly on the lower three-fourths, cheeks about one-seventh as broad as the eye height, proboscis short and rather robust; thorax grayish pruinose and marked with four black vittæ, four pairs of postsutural dorsocentral bristles, four sternopleurals, scutellum bearing four marginal pairs, the last pair directed backward; abdomen polished, the last three segments except the narrow hind margins thinly grayish pruinose, all with marginal, the second and third also with discal, the fourth wholly covered with bristles; hind tibiæ somewhat unevenly ciliate with bristles, middle tibiæ bearing three or four large ones on the outer-anterior side, front pulvilli of male as long as the last tarsal joint; wings hyaline, third vein bearing two bristles near the base, first posterior cell broadly open, calypteres white; length, 7 to 8 mm. One male and two females.

Habitat.—Franconia, New Hampshire (Mrs. A. T. Slosson); Eddington, Maine (Dr. G. de N. Hough); and Moscow, Idaho (J. M. Aldrich).

Type.—Cat. No. 6214, U.S.N.M.¹

FRONTINA SETIPES, new species.

Black, the palpi yellow; vertex one and one-fourth times as wide as either eye, frontal bristles descending slightly below the arista, the two upper pairs stout, reclinate, sides of front yellowish gray, the face whitish gray pruinose, facial ridges bristly on the lower two-thirds, antennæ somewhat shorter than the face, the third joint three and one-half times as long as the second, arista thickened on the basal third, the penultimate joint slightly longer than broad, cheeks one-fourth as broad as the eye height, proboscis short and very robust; thorax bluish gray pruinose, marked with four black vittæ, three pairs of postsutural dorsocentral bristles, three sternopleurals, scutellum bearing four marginal pairs, the last one the smallest, cruciate, almost vertical; abdomen on last three segments densely gray pruinose and with darker reflecting spots, first segment and narrow hind margins of the others polished black, all with marginal, the fourth also with discal bristles; hind tibiæ somewhat unevenly ciliate, middle tibiæ bearing two long and three short bristles on the outer-anterior side, front pulvilli slightly longer than the last tarsal joint; wings hyaline, third vein bearing four bristles near the base, calypteres white; length, 8 mm. A male specimen collected by Prof. J. M. Aldrich.

Habitat.—Brookings, South Dakota.

Type.—Cat. No. 6216, U.S.N.M.

¹*Phoroocera parva* Bigot. The type has been studied by Dr. F. Brauer, who says that it belongs to the genus *Paradoria*. The form referred to this species in my Revision of the Tachinidæ, page 103, will therefore require a new name, for which *erecta* is proposed; in this species the apical pair of scutellar bristles is directed almost vertically.

Type.—Cat. No. 6215, U.S.N.M.

STURMIA LIMATA, new species.

Black, the palpi yellow; vertex slightly wider than either eye, the two upper pairs of frontal bristles reclinate, much longer than the others, sides of front grayish, the face whitish pruinose, frontals descending nearly to apex of second antennal joint, vibrissæ slightly above front edge of oral margin, ridges bristly nearly to middle, antennæ five-sixths as long as the face, the third joint two and one-half times as long as the second, narrow, arista thickened to middle, the penultimate joint shorter than broad, cheeks one-fifth as broad as the eye height, proboscis rather slender, labella small; thorax gray pruinose, marked with four black vittæ, four pairs of postsutural dorsocentral bristles, four sternopleurals, scutellum bearing four marginal pairs, the last one cruciate and nearly vertical; abdomen polished, the second segment thinly gray pruinose, the following ones except their bases velvety, first three segments with marginal bristles, the fourth with a marginal and submarginal row; hind tibiæ rather evenly ciliate, middle tibiæ bearing two bristles on the outer-anterior side, front pulvilli slightly shorter than the last tarsal joint; wings hyaline, third vein bearing four bristles near the base, fourth vein beyond the bend nearly straight, calypteres white; length, 7 mm. Two males.

Habitat.—Opelousas, Louisiana (April, 1897, G. R. Pilate), and Ohio.

Type.—Cat. No. 6217, U.S.N.M.

STURMIA AUSTRINA, new species.

Black, the palpi yellow; vertex of male one-half, of female nearly as wide as either eye, frontals descending to the arista, two pairs of orbitals in female, sides of front grayish, face whitish pruinose, vibrissæ on a level with front edge of oral margin, ridges bristly nearly to middle, cheeks one-tenth the eye height, antennæ almost as long as the face, the third joint of male five, of female four times as long as the second, arista slightly thickened on the basal third, the penultimate joint scarcely longer than broad, proboscis short and robust; thorax gray pruinose, four black vittæ, four pairs of postsutural dorsocentral bristles, three sternopleurals, scutellum bearing four marginal pairs, the last one very short and nearly horizontal; abdomen gray pruinose on broad bases of the last three segments, the second and third with marginal, the fourth almost wholly covered with bristles; hind tibiæ ciliate, middle tibiæ bearing one bristle on the outer-anterior side, front pulvilli of male slightly longer than the last tarsal joint; wings hyaline, third vein bearing a single bristle near the base, fourth vein beyond the curve nearly straight, calypteres white; length, 4.5 to 5.5 mm. A specimen of each sex bred from a Pyralid by Dr. H. G. Dyar.

Habitat.—Nassau, Bahama Islands.

Type.—Cat. No. 6218, U.S.N.M.

STURMIA DISCALIS, new species.

Black, the palpi yellow; vertex nearly twice as wide as either eye, two pairs of orbital bristles, frontals descending to apex of second antennal joint, antennae nearly as long as the face, the third joint about five times as long as the second, arista thickened on the basal fourth, the penultimate joint shorter than broad, cheeks one-fourth as wide as the eye height, vibrissae on a level with front edge of oral margin, facial ridges bristly on the lowest fourth, proboscis rather slender; thorax gray pruinose, marked with four black vittae, three pairs of post-sutural dorsocentral bristles, three sternopleurals, scutellum bearing three pairs of large marginal bristles, the last pair diverging, directed backward; abdomen yellowish gray pruinose, the broad apices of the last three segments polished, each segment bearing marginal, the last three also with discal bristles, venter depressed, destitute of short, backwardly curving spines in the middle; hind tibiae unevenly ciliate, middle tibiae bearing a single bristle near the middle of the outer-anterior side; wings hyaline, third vein bearing two bristles near the base, calypteres white; length, 8 mm. A female specimen.

Habitat.—Wisconsin.

Type.—Cat. No. 6219, U.S.N.M.

MASICERA POLITA, new species.

Differs from *Sturmia discalis* as follows: Palpi black, vertex one-third as wide as either eye, no orbitals, frontals descending nearly to middle of third antennal joint, the latter three times as long as the second, cheeks one-sixth the eye height, body polished, the mesonotum and narrow bases of the last three abdominal segments thinly whitish pruinose, middle tibiae bearing three bristles near the middle of the outer-anterior side, hind tibiae not ciliate, third vein of wings bearing a single bristle near the base, front pulvilli elongate; length, 5 mm. A male specimen collected August 8 by Mr. C. H. T. Townsend; received from Prof. T. D. A. Cockerell.

Habitat.—White Mountains, New Mexico (altitude about 8,000 feet).

Type.—Cat. No. 6220, U.S.N.M.

EUTHERA BICOLOR, new species.

Head yellow, occiput with a broad black streak extending from the neck to each eye and bordered below by a whitish pruinose stripe which extends downward along the orbit, sides of front and face whitish pruinose, vertex four-fifths as wide as either eye, two pairs of orbitals, frontals short and sparse, descending to base of antennae, cheeks one-sixth as wide as the eye height, antennae as long as the face, the first two joints yellow, the third black, slightly over twice as

long as the second, arista yellow at base, thickened on the basal fourth, mouth parts yellow; thorax and scutellum black, thinly whitish pruinose, the mesonotum with three broad black vittæ, two sternopleural bristles, scutellum bearing three marginal pairs, the last one very small and diverging; abdomen polished, reddish yellow, a dorsal subtriangular brownish spot extends over the first two segments, very short marginal bristles on the last three segments; coxæ and femora reddish yellow, tibiæ dark brown, tarsi black; wings from base to apex of anal cell, and from slightly beyond humeral crossvein obliquely almost to middle of discal section of fifth vein, yellow, behind fifth vein and along the apex gray, remainder brown except an oblique whitish hyaline fascia almost crossing the wing beyond the hind crossvein; first posterior cell closed, its petiole less than half as long as the hind crossvein; calypteres yellow; length, 4.5 mm. A female specimen.

Habitat.—Texas.

Type.—Cat. No. 6221, U.S.N.M.¹

MUSCOPTERYX TIBIALIS, new species.

Black, the palpi, tibiæ, and second antennal joint of female yellow, cheeks and lower part of face reddish brown; vertex of male one-third, in the female as wide as either eye, sides of face bearing three or four irregular rows of rather long bristly hairs of nearly an equal length, thorax subopaque, gray pruinose and with four black vittæ, scutellum bearing three marginal pairs of bristles, the last one cruciate, only slightly shorter than the first; abdomen somewhat polished, light grayish pruinose and with reflecting darker spots; wings hyaline, tinged with brownish toward the base, third vein bearing two bristles near the base, bend of fourth vein angular and with a short stump of a vein, the vein strongly bent inward beyond the bend; calypteres whitish; length, 7 to 9 mm. A specimen of each sex collected April 23, 1898, by Prof. J. M. Aldrich.

Habitat.—Moscow and Julietta, Idaho.

Type.—Cat. No. 6223, U.S.N.M.

¹ *Chetolyga nigrifacies* Bigot. Dr. F. Brauer has examined the type of this species and reports that it belongs to the genus *Pelmatomyia* or *Parexorista*. The species referred to it in my Revision of the Tachinidae, page 125, will therefore require a new name, for which *antennalis* is proposed; the specimen is a female, black, the sides of the second abdominal segment, hind angles of the first and front angles of the third yellow, antennæ as long as the face, the third joint over three times as long as the second, front tarsi noticeably dilated, third vein bearing a single bristle near the base.

Type.—Cat. No. 6222, U.S.N.M.

MUSCOPTERYX OBSCURA, new species.

Differs from the male of *tibialis* as follows: Tibiæ, cheeks, and face black; vertex one-fourth as wide as either eye, bristly hairs on sides of face very short, mesonotum somewhat polished, not pruinose; abdomen thinly brownish pruinose, without reflecting darker spots; third vein bearing about four bristles near the base, bend of fourth rounded, without a stump, the vein almost straight beyond the bend; calypteres yellow; length, 7 mm. Two males collected July 30 and August 24, 1897, by Prof. Trevor Kineaid.

Habitat.—St. Paul Island, Alaska.

Type.—Cat. No. 6224, U.S.N.M.

PHORICHÆTA CINEROSA, new species.

Black, the third antennal joint at base yellow, palpi at apex yellow, changing to brown at the base; sides of front, face and cheeks opaque, grayish pruinose, antennæ three-fourths as long as the face, the third joint blunt pointed at the apex, three times as long as the second; thorax and scutellum somewhat polished, rather thinly gray pruinose; abdomen highly polished, the second and third segments bearing discal and marginal bristles; wings hyaline, third vein bristly nearly to apex of discal cell; length, 4 mm. One specimen collected July 5 by Mr. H. S. Barber.

Habitat.—Flagstaff, Arizona.

Type.—Cat. No. 6225, U.S.N.M.

BRACHYCOMA PUBICORNIS, new species.

Black, including the palpi; vertex nearly half as wide as either eye, frontal bristles in a single row each side, descending slightly below base of second antennal joint, sides of face bearing a row of rather long bristles on the lower half, on the upper half with one or two irregular rows of very short bristly hairs, antennæ three-fourths as long as the face, the third joint nearly twice as long as the second, arista brown, the middle yellowish, distinctly pubescent, the longest slightly longer than greatest diameter of arista, the latter thickened almost to the middle, vibrissæ slightly above front edge of oral margin, ridges bristly on lowest third, proboscis rather short and robust; thorax grayish pruinose and with three black vittæ, scutellum bearing three pairs of marginal bristles, the last one cruciate and but slightly shorter than the others; abdomen grayish pruinose and with darker reflecting spots, first two segments without dorsal bristles, the last two with marginal ones, second segment of hypopygium polished; hind tibiæ not ciliate; wings hyaline, brownish at base and along most of the veins, third vein bristly nearly halfway to small crossvein, bend of fourth rectangular and with a short stump, costal spine minute;

calypteres whitish; length, 11 mm. A male specimen collected by Prof. J. M. Aldrich.

Habitat.—Harrison, Idaho.

Type.—Cat. No. 6226, U.S.N.M.

BRACHYCOMA SETOSA, new species.

Differs from *pubicornis* as follows: Vertex two-thirds as wide as either eye, sides of face bearing two irregular rows of rather short bristles of nearly an equal length, antennæ four-fifths as long as the face, arista bare, proboscis somewhat elongate, rigid, slender, labella very narrow, abdomen with a pair of marginal bristles on the second segment, second segment of hypopygium somewhat opaque, thinly pruinose, wings not brownish along the veins, costal spine nearly as long as the small crossvein; length, 8.5 mm. A male specimen collected July 24 by Prof. T. D. A. Cockerell.

Habitat.—Beulah, New Mexico.

Type.—Cat. No. 6227, U.S.N.M.

GÆDIOPSIS COCKERELLII, new species.

Black, the face, cheeks, and apices of palpi yellow, scutellum reddish brown; vertex one and one-fourth times as wide as either eye, sides of front thinly grayish pruinose, frontal bristles descending to the arista, an irregular row of bristles outside of them, sides of face on outer half covered with short bristly hairs, the inner half with a row of bristles, sides of face and cheeks densely pale yellowish pruinose, vibrissæ at a short distance above the oral margin, ridges bristly on the lower three-fourths, antennæ four-fifths as long as the face, the third joint two and one-half times as long as the second, arista thickened on the basal two-thirds, cheeks nearly half as wide as the eye height; thorax thinly gray pruinose and marked with four black vittæ; abdomen short and broad, somewhat opaque, not pruinose except on under side of the fourth segment, dorsum densely covered with rather long and nearly erect bristly hairs, the first three segments bearing marginal bristles; hind tibiæ evenly ciliate on the outer-anterior side and with a much longer bristle in the middle; wings hyaline, the base brown, small crossvein clouded with brown, third vein bearing two bristles near the base, calypteres brown; length, 11 mm. A male specimen collected August 20 by Mr. C. H. T. Townsend, and received from Prof. T. D. A. Cockerell, for whom this fine species is named.

Habitat.—White Mountains, New Mexico (altitude about 8,200 feet).

Type.—Cat. No. 6228, U.S.N.M.

GÆDIOPSIS FACIALIS, new species.

Black, the second antennal joint, palpi, apex of scutellum, a spot on sides of second and the fourth abdominal segment yellow; vertex as

wide as either eye, a row of stout bristles outside of the frontals, ocellars present, large, sides of front yellowish gray, the face and cheeks whitish pruinose, sides of face bearing several short bristly hairs on the lower portion, antennæ nearly as long as the face, the third joint almost six times as long as the second; thorax gray pruinose, marked with four black vittæ, apical pair of scutellar bristles nearly horizontal, abdomen grayish pruinose and with darker reflecting spots, second and third segments bearing marginal bristles; hind tibiæ on the outer-anterior side evenly ciliate with short bristles and with a much longer one at the middle; wings hyaline, third vein bearing two bristles near the base, calypteres white; length, 9 mm. A male specimen collected by Mr. H. K. Morrison.

Habitat.—Georgia.

Type.—Cat. No. 6230, U.S.N.M.

GÆDIOPSIS OCELLARIS, new species.

Differs from *facialis* as follows: Antennæ and abdomen black, lower portion of sides of front, the face and fourth abdominal segment densely golden yellow pruinose; sides of face bearing two irregular rows of bristles, ocellar bristles wanting, a pair of marginal bristles on the first abdominal segment; length, 9 mm. A male specimen collected June 18, 1891, by Prof. James S. Hine.

Habitat.—Ohio.

Type.—Cat. No. 6229, U.S.N.M.

PARAPHYTO SARCOPHAGINA, new species.

Black, the antennæ, face, and cheeks reddish brown, palpi yellow; vertex one-fourth as wide as either eye, sides of face bearing a few short bristly hairs on the upper edge, antennæ half as long as the face, the third joint scarcely longer than the second, longest hairs of arista slightly longer than greatest diameter of arista, vibrissæ a short distance above oral margin, cheeks nearly half as wide as the eye height, head at vibrissæ slightly shorter than at base of antennæ, proboscis slender, labella unusually slender; thorax gray pruinose and marked with three black vittæ, three pairs of postsutural dorso-central bristles, two sternopleurals, scutellum bearing three marginal pairs, the third pair cruciate; abdomen grayish pruinose and with darker reflecting spots, hairs depressed, second and third segments with marginal bristles, the fourth with a submarginal row of large bristles and a marginal row of small ones; claws and pulvilli very long; wings hyaline, tinged with yellowish toward the base, third vein bearing three bristles near the base, calypteres whitish; length, 10 mm. A male specimen collected by Mr. Charles Robertson.

Habitat.—Carlinville, Illinois.

Type.—Cat. No. 6231, U.S.N.M.

MERIANIA CHALYBÆA, new species.

Head black, facial depression yellowish, bordered each side by reddish brown which, below the middle, is prolonged to the lower end of the eye, frontal vitta of male almost obliterated for a short distance, vertex of female one and one-fourth times as wide as either eye, female with the ocellar bristles present and three pairs of orbitals, wanting in the male, frontals descending nearly to middle of second antennal joint, sides of face covered on the triangular upper outer half with rather long, black bristly hairs, vibrissæ far above the oral margin, ridges bristly on the lowest fourth; antennæ orange yellow, scarcely reaching below middle of face, the third joint only slightly longer than the second, arista brown, thickened on the basal third, the penultimate joint shorter than broad; proboscis black, palpi yellow; thorax blackish steel blue, thinly whitish pruinose, and marked with four black vittæ, four pairs of postsutural dorsocentral bristles, three sternoplurals; scutellum reddish yellow, bearing five marginal pairs of bristles, the last pair the shortest, cruciate; abdomen steel blue, polished, very thinly whitish pruinose, last three segments with discal and marginal bristles; legs black, hind tibiæ not ciliate, front pulvilli of male longer than last tarsal joint, last four joints of front tarsi of female greatly dilated; wings hyaline, third vein bearing three small bristles near the base, calypteres whitish, bordered with brown; length, 8 to 11 mm. Two males and five females, collected by Prof. J. M. Aldrich.

Habitat.—Moscow, Vollmer (May 30), Julietta, Grangeville, and Craig Mountains, Idaho.

Type.—Cat. No. 6232, U.S.N.M.

This European genus has not heretofore been recorded from this country. In the table of genera given in my Revision of the Tachinidæ it would belong to couplet 43, and will be recognized by the absence of ocellar bristles in the male and the greatly dilated front tarsi of the female; the first posterior cell ends far before the wingtip.

AMOBIA AURATA, new species.

Black, including the palpi; sides of front, of face, and the cheeks golden yellow pruinose; sides of face bearing two rows of rather short bristly hairs; thorax gray pruinose, marked with three black vittæ, a black streak on pleura in front of wing; abdomen on first three segments bluish gray pruinose, the hind margin of each and three triangular spots extending from it across the segment, black; fourth segment and remainder of abdomen posterior to it golden yellow pruinose, the former crossed longitudinally with three brownish spots; wings hyaline, third vein bearing two bristles near the base, calypteres white; length, 7 mm. Three female specimens.

Habitat.—White Mountains, New Hampshire (H. K. Morrison); Milwaukee, Wisconsin (Dr. S. Graenicker); and Harrison, Idaho (J. M. Aldrich).

Type.—Cat. No. 6233, U.S.N.M.¹

GYMNOMMA QUADRISSETOSA, new species.

Head yellow, upper part of occiput and sides of front black, yellowish gray pruinose, hairs of face and cheeks yellowish white, antennæ yellow, the third joint yellowish brown, slightly longer than the second, strongly convex on the upper side, proboscis black; thorax black, densely yellowish gray pruinose and with four black vittæ, four pairs of postsutural dorsocentral bristles, three sternopleurals, scutellum yellowish brown, abdomen black, polished, second segment with a marginal pair of bristles, the third with a marginal row, the fourth covered except on the basal third, on either side of the first and second segments are two or three stout bristles; legs black; wings grayish, the base tinged with yellow, base of third vein bearing six bristles, calypteres yellowish smoky brown; length, 12 mm. Five females collected July 15 by Mr. C. H. T. Townsend.

Habitat.—Sierra Madre, Mexico (altitude about 7,300 feet).

Type.—Cat. No. 6260, U.S.N.M.²

¹*Fabricia infumata* Bigot. The type of this species has been examined by Dr. F. Brauer, who reports that it belongs to the genus *Parafabricia*. The form described under this name in my Revision of the Tachinidæ, page 144, will therefore require a new name, for which *palpalis* is proposed. The third antennal joint is nearly ellipsoidal in outline, nearly twice as long as wide, as long as the second, arista thickened on the basal four-fifths, the last joint less than three times as long as the preceding, sides of face on the triangular upper-outer half covered with short yellow bristly hairs, mesonotum bluish gray pruinose.

Type.—Cat. No. 6234, U.S.N.M.

Jurinia metallica Desvoidy. Dr. Brauer has also studied the type of this species, and reports that it is evidently the same as *Jurinia histricoides* Williston. The species described as *metallica*, in my Revision, page 147, may therefore take the name of *adusta*, which is there given as a synonym of the former.

²The species described in my synopsis of the Tachinidæ, page 145, as *Epalpus nigripilosus* is not that species, but will form a new genus differing from *Epalpus* by having only a median discal and marginal pair of bristles on the second abdominal segment and only a discal pair and marginal row on the third; from *Gymnomma* it differs in that the ocellar bristles are wanting; third joint of antennæ nearly twice as long as the second, strongly convex on the upper side, black, the base and remainder of antennæ yellow, arista black, its penultimate joint over twice as long as broad, palpi wanting, eyes bare, thorax black, densely yellowish gray pruinose and with four black vittæ, scutellum yellow. The genus may be named *Parépalpus*, new genus, and the species *flavida*, new species.

Family DEXIDÆ.

MYOCERA BIVITTATA, new species.

Black, the second antennal joint, face, cheeks, and palpi yellow; antennæ three-fourths as long as the face, the third joint nearly three times as long as the second, arista rather long plumose, sides of face on the upper part golden yellow pruinose, and with a few short black bristly hairs, on the lower portion and the cheeks in certain lights very thinly whitish pruinose; cheeks two-thirds as broad as the eye height; proboscis one and one-fifth times as long as height of head, slender, rigid, labella small; body rather slender, gray pruinose; mesonotum with three, scutellum with one, first three segments of abdomen with two black vittæ, the latter united on the first segment; also a black vitta on pleura in front of each wing; second and third abdominal segments bearing only marginal bristles; hind tibiæ not ciliate, middle tibiæ bearing a single bristle on the outer-anterior side, front pulvilli greatly elongated; wings hyaline, gray at the base, veins bare, bend of fourth rounded and without an appendage, front calypter and base of the other white, remainder of the hind one brown; length, 7 mm. A male specimen collected August 17 by Mr. C. H. T. Townsend; received from Prof. T. D. A. Cockerell.

Habitat.—White Mountains, New Mexico (altitude about 8,200 feet).

Type.—Cat. No. 6235, U.S.N.M.

MEGAPARIA FLAVEOLA, new species.

Yellow, the mesonotum except lateral margins, and a median vitta on the abdomen black; base of scutellum brown; vertex one-third as wide as either eye, sides of face bare, cheeks slightly less than half as wide as the eye height, antennæ nearly half as long as the face, the third joint slightly longer than the second; arista black, its longest hairs only slightly longer than its greatest diameter; proboscis and palpi unusually short and robust; mesonotum gray pruinose, marked with three black vittæ; abdomen yellowish gray pruinose, the first three segments with marginal bristles; hind tibiæ not ciliate, claws and pulvilli unusually long; wings hyaline, third vein bristly halfway to small crossvein, fourth vein rounded at the bend and without an appendage, first posterior cell closed in the wingmargin, calypteres whitish; length, 8 mm. A male specimen.

Habitat.—Colorado.

Type.—Cat. No. 6236, U.S.N.M.

CHÆTONA FLAVIPENNIS, new species.

Black, the antennæ and palpi yellow, frontal vitta, cheeks, and lower part of sides of face, reddish brown; vertex of male one-sixth, in the

female one and one-fourth times as wide as either eye, one pair of orbital bristles in the female, frontals descending nearly to middle of second antennal joint, sides of face covered with rather short bristly hairs on the upper half, antennae from two-thirds to three-fourths as long as the face, the third joint in the male nearly twice, in the female one and one-half times as long as the second, longest hairs of arista nearly three times as long as its greatest diameter, cheeks one-seventh as wide as the eye height, proboscis very short and robust, labella very large; body densely yellowish gray pruinose, mesonotum with four indistinct darker vittae, three pairs of postsutural dorsocentrals, two sternopleurals, hairs of middle of dorsum of abdomen depressed, first segment without dorsal bristles, the following two with a marginal row of rather short ones; hind tibiae not ciliate, pulvilli of male elongate; wings and veins yellowish, third vein bearing two bristles near the base, fourth vein broadly arcuate at the bend, ending just above the wingtip, hind crossvein nearly midway between the small and bend of fourth; calypteres yellow; length, 9 mm. A specimen of each sex collected May 6, 1900, by Prof. James S. Hine.

Habitat.—Vinton, Ohio.

Type.—Cat. No. 6237, U.S.N.M.

Family ANTHOMYIDÆ.

PHAONIA PALLIDULA, new species.

Male.—Head black, face and frontal orbits whitish pruinose, eyes as widely separated as the posterior ocelli, frontal vitta obliterated for a short distance, antennae three-fourths as long as the face, dark brown, the first two joints and base of the third yellow, third joint nearly twice as long as the second, longest hairs of arista three times as long as greatest diameter of arista, hairs of eyes rather sparse, cheeks about one-fifth as broad as the eye-height, proboscis dark brown, slender and rigid, labella small and very narrow, palpi yellow, narrow; thorax black, bluish gray pruinose, marked with four indistinct blackish vittae, three pairs of postsutural dorsocentral bristles, one or two pairs of acrostichals, none in front of the suture; sternopleurals one and two; scutellum yellow, grayish pruinose, base of upper side broadly blackish; abdomen yellowish, varied with pale brownish, the last two segments largely of this color, wholly gray pruinose, viewed from behind discloses an interrupted blackish dorsal vitta, last two segments bearing a discal and a marginal row of bristles; venter yellow, an interrupted black vitta in the middle; legs yellow, front femora largely black, an interrupted pale brown band toward apices of the other femora, tarsi brown; middle femora bearing a row of rather long bristles on basal two-thirds of under side, the hind ones with two rows of rather long ones extending nearly whole length of

under side; front tibiae bearing a bristle near middle of posterior side, middle tibiae with one above and one below the middle of the posterior side, hind tibiae with two near middle of inner-anterior, two near middle of outer-anterior, and one below middle of outer-posterior side; front pulvilli as long as the last tarsal joint; wings hyaline, costal spine minute, fourth vein diverging from the third; calypteres white, halteres yellow; length 7 mm. A male specimen collected by Mr. H. K. Morrison.

Habitat.—Southern Georgia.

Type.—Cat. No. 6238, U.S.N.M.

MYDÆA FLAVICORNIS, new species.

Head black, frontal orbits and face whitish pruinose, eyes of male almost contiguous, the frontal vitta obliterated for a short distance; antennae yellow, arista at base yellow, the remainder brown, the longest hairs about twice as long as greatest diameter of arista, antennae slightly shorter than the face, the third joint broad, nearly three times as long as the second; cheeks about one-tenth as wide as height of eyes, proboscis dark brown, short and robust, palpi slender, yellow; thorax black, gray pruinose, and marked with four black vitta, four pairs of postsutural dorsocentral bristles, sternopleurals one and two; one pair of acrostichal bristles, hairs between dorsocentral bristles arranged in about eight irregular rows; scutellum yellow, the base usually brown, three pairs of marginal bristles, of which the basal pair is about half as long as the others; abdomen black, gray pruinose, the last two segments bearing discal and marginal bristles; femora, tibiae, and tarsi yellow, bristles on under side of middle and hind femora, except on apical third of the latter, shorter than diameter of the femora; front tibiae without bristles except at apex, middle tibiae each bearing two near middle and three-fourths of the posterior side, hind ones bearing two below middle of anterior-inner and two near middle of anterior-outer side; wings hyaline, veins yellow, bare, fourth vein diverging from the third, hind crossvein nearly straight, small crossvein near two-thirds length of discal cell, costal spine wanting; calypteres yellowish white; length, nearly 5 mm. Two males and one female.

Habitat.—Rouville County, Quebec, Canada (May 24, 1900, Mr. G. Chagnon), and St. Louis, Missouri.

Type.—Cat. No. 6239, U.S.N.M.

CHIROSLIA CAPITO, new species.

Male.—Black, the lower part of the front, extending along sides of facial ridges nearly to their lower ends, the halteres and bases of tibiae yellow; face and frontal orbits whitish pruinose, front at nar-

rowest point nearly as wide as either eye, frontal orbits unusually wide, wider than frontal vitta at base, the latter strongly contracted above, at its narrowest point about as wide as lowest ocellus, head considerably inflated, three pairs of frontal bristles, proboscis rather slender, rigid, with small labella; antennæ three-fourths as long as the face, the second joint three-fourths as long as the third, arista almost bare, thickened on the basal fourth; body densely light bluish gray pruinose, unmarked; three pairs of postsutural dorsocentral bristles, sternopleurals one and two, scutellum bearing a subbasal and a subapical pair; abdomen depressed, narrow, hypopygium rather small, with a fissure slightly to left of median line, no ventral lobes; middle femora bristly on basal half of under side, the hind ones on nearly their entire length; front tibiae bearing a bristle near two-thirds length of outer side and another below middle of inner-posterior side; middle tibiae with one below middle of outer-anterior, one on outer-posterior, and two on median third of inner-posterior side; hind tibiae ciliate, with rather short bristles on nearly the entire length of the inner-anterior and inner-posterior sides, and with about five larger bristles on the outer-anterior and outer-posterior sides; front pulvilli as long as the last tarsal joint; wings whitish hyaline, costa not distinctly spinose, costal spine about as long as the small crossvein.

Female.—Differs from the male as follows: Front twice as wide as either eye, frontal vitta only slightly contracted above, two pairs of orbital bristles and a cruciate pair of preocellars, second antennal joint about half as long as the third, abdomen broad at base, tapering to the tip; hind tibiae bearing only two bristles on the anterior-inner side, none on the posterior-inner, front pulvilli about half as long as the last tarsal joint, costa with rather long spines.

Length, 4.5 mm. A specimen of each sex received from Mr. C. W. Johnson.

Habitat.—Manumuskin, New Jersey.

Type.—Cat. No. 6197, U.S.N.M.

Family SCATOPHAGIDÆ.

PSELAPHEPHILA SIMILIS, new species.

Head yellow, the occiput and three triangular spots on vertex black, gray pruinose, face, except its extreme sides, white pruinose, frontal orbits whitish pruinose, changing above to gray; antennæ black, first two joints and base of third yellow, palpi light yellow, proboscis black; body black, thorax densely, the abdomen thinly bluish gray pruinose, the abdomen somewhat polished; femora black, their broad apices and the tibiae yellow, tarsi darker yellow; bristles of legs and body normal; wings grayish hyaline, the veins brown; halteres yellow; length, 4 mm. One male and seven females collected April 30, 1870; May 8, 1869,

and June 3, 1876, by Mr. Edward Burgess. Also a female specimen collected May 12, 1900, in Chambly County, Quebec, Canada, received for naming from Mr. C. W. Johnson, of Philadelphia, to whom it has been returned.

Habitat.—Beverly, Massachusetts.

Type.—Cat. No. 6240, U.S.N.M.

Family MICROPEZIDÆ.

CALOBATA VITTIPENNIS, new species.

Head reddish brown, whitish pruinose, lower part of front black and somewhat polished, followed by a velvet black fascia expanded in the form of a tooth in the middle below and also above on either side of the ocelli, vertex, except the ocellar triangle, steel-blue, polished; one pair of postvertical bristles, two widely separated pairs of vertical and one pair of orbital bristles; antennæ reddish brown, the third joint twice as long as wide, arista bare; clypeus and palpi reddish brown, proboscis dark brown; body bluish black, grayish pruinose, the humeri, propleura, and hypopygium reddish brown, two or three bristles in front of each middle coxa; legs dark brown, extreme bases of middle femora and two bands on their apical half yellowish, hind femora yellow, a broad median band and a narrower one midway between it and the apex brown, front tarsi except base of first joint whitish, changing to yellow toward the apex; wings grayish hyaline, slightly tinged with yellow along the costa, first posterior cell brown, this color encroaching on the submarginal cell at its apex and on the middle and upper part of the apical half of the discal cell; apex of first vein far before the small crossvein, last section of fourth vein one and one-fifth times as long as distance between apices of second and third veins, anal cell prolonged over halfway from the fifth vein to the wing margin; length, 6 to 9 mm. Four males and three females collected April 27 to 29 by Mr. C. H. T. Townsend.

Habitat.—Frontera, Mexico.

Type.—Cat. No. 6261, U.S.N.M.

Family TRYPETIDÆ.

SPILOGRAPHA FRACTURA, new species.

Yellow, an ocellar dot and band beyond middle of hypopygium black; face strongly retreating below, mesonotum subopaque, thinly gray pruinose, bristles of thorax and the four on scutellum black, short hairs of mesonotum chiefly black, abdomen polished, its hairs black; wings hyaline, a black spot fills stigma and crosses marginal cell, a black band begins at first vein above forking of the second and third and extends to apex of anal cell; a black cloud on small and

another on posterior crossvein, a brown dot below middle of penultimate section of fifth vein, a black spot midway between apices of first and second veins extending from costa to middle of submarginal cell, apex of wing from before apex of second vein to beyond apex of fourth broadly bordered with black, the inner edge of this border concave; small crossvein near two-thirds length of discal cell and noticeably beyond apex of first vein, third vein bristly nearly its entire length; length, 4 to 5 mm. Five males and three females.

Habitat.—White Mountains, New Mexico (8,000 feet elevation, Townsend), and Colorado (Morrison).

Type.—Cat. No. 6262, U.S.N.M.