

THREE NEW SPECIES OF ANTHOMYIDÆ (DIPTERA) IN THE UNITED STATES NATIONAL MUSEUM COLLECTION.

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The three species herein described have been standing in the United States National Museum collection without names for several years, and in working over some Anthomyidæ belonging to the Division of Cereal and Forage Crops I had occasion to compare them with some specimens contained therein. I consider it advisable to publish descriptions of those new forms, as probably they are present in other collections also without names.

TETRAMERINX FEMORATA, new species.

Male and female.—Black, shining. Mesonotum unstriped. Abdomen with large, paired, subtriangular spots. Legs black, tibia brown-black. Wings clear. Calyptræ white. Halteres yellow.

Male.—Frons distinctly over one-third the head width, center stripe, viewed from behind, opaque black, intersected by the whitish pollinose, wedge-shaped frontal triangle to the anterior margin, viewed from in front the whole stripe is whitish pollinose; orbits narrow, whitish pollinose, four orbital bristles present, which increase in length from the posterior (upper) one to the moderately long anterior one and become slightly wider spaced; antennæ elongate, third joint about four times as long as second, reaching almost to mouth margin; one weak bristle on dorsal surface of second joint; arista almost bare, thickened on almost the basal half, basal joints short; face and cheeks with silvery white pollinosity; cheek about one-sixth as high as eye, marginal bristles numerous, downwardly directed, of moderate strength, vibrissæ differentiated; palpi linear, black, with a few long hair-like lower marginal bristles; proboscis of good length, glossy black-brown on apical half. Mesonotum grayish pollinose, with very faint indications of three stripes, the center one double; four post-sutural bristles, the two pairs behind suture weaker than the two presutural pairs; acrostichals 3-rowed; pleuræ with faint grayish pollinosity. Abdomen short, not longer

than thorax, ovate, glossy black, anterior margin of each segment with a gray pollinose, laterally dilated spot, and generally with a narrow dorso-central line of the same nature, which gives the segments the appearance of having a large subtriangular black spot on each side; all segments with scattered, surface, hairlike bristles, those on the lateral and posterior margins longest, no strong discal bristles on last segment; hypopygium glossy black, of moderate size, but not protruding much. Legs rather elongate, mid tarsus longer than mid tibia by almost the length of the last two joints; fore tibia without bristles except at apex; mid femur without any distinct ventral bristles; mid tibia bare; hind femur with a comblike fasciculus of short, stiff, black bristles, which begins at near base on the ventral surface and runs for a short distance on to the postero-ventral surface; antero-ventral surface with 2 to 3 long bristles on apical third; hind tibia bare, except for one short, preapical bristle at near to apex on dorsal surface, and in one specimen a weak antero-ventral bristle at about apical third: Wings clear; costal thorn indistinguishable; third and fourth veins convergent, as in *Muscina stabulans*; last section of fourth vein twice as long as penultimate section; outer cross vein slightly waved. Calyptræ with the under scale much the largest.

Length, 3 mm.

Female.—Similar to the male in color, etc., but differs considerably in the bristling of the legs; the fore tibia has one short postero-ventral bristle on near middle; the mid femur has one strong bristle on the middle of the anterior surface; the mid tibia has on the posterior surface one moderately strong bristle above the middle and another, weaker, one below middle; the hind femur has the comb absent, and one strong preapical antero-ventral bristle; the hind tibia has two close placed weak antero-ventral bristles below middle, one on antero-dorsal surface at middle, and one weak preapical dorsal bristle. Wings as in male, but the last section of fourth vein is not twice as long as penultimate section.

Length, 4 mm.

Type, Allotypes, and Paratype.—Cat. No. 15670, U.S.N.M.

Type-locality.—Los Angeles County, California, March (collection Coquillett). Two males and two females.

PARALIMNOPHORA, new genus.

Generic characters.—Eyes bare or with very short, sparse pilosity; frons broad, at vertex about one-third the head width, in male distinctly narrower at vertex than above antennæ; orbits distinct, orbital bristles situated on near to inner margin of orbits, lower pair very strong, the three pairs above them decreasing in size, all four pairs incurved; upper two pairs backwardly directed; ocellar bristles very

strong, and long, widely divergent, and forwardly directed; post-ventral bristles weak, divergent; antennæ distinctly shorter than face, second joint with three strong dorsal bristles, the one nearest apex the longest; arista subplumose, the hairs most distinct on upper surface, basal joints short, terminal portion only slightly swollen and tapering at base, cheeks with 2 to 3 rows of bristlelike hairs, the upper series of which are slightly upturned; vibrissæ distinct, bristles carried up beyond vibrissæ on facalia (3-4); proboscis and palpi normal. Mesonotum with 2 presutural, 3 postsutural, and 2 humeral bristles, pleuræ with two bristles situated above fore coxæ, 4 to 5 on hind margin of mesopleura, and 3 (1-2) on sternopleura. Wings with sixth vein reaching only halfway to margin; veins 3-4 slightly divergent. Calyptræ with the under scale very much larger than the upper.

Type of genus.—*Paralimnophora brunnesquama*, new species.

PARALIMNOPHORA BRUNNESQUAMA, new species.

Male.—Black, shining. Frons with center stripe, viewed from in front, gray dusted; face gray dusted. Mesonotum shining, deep black, unstriped, in some lights with an indication of grayish-yellow pollinosity on humeri, lateral, and posterior margins; acrostichal bristles irregular (3-4) rowed. Abdomen ovate; with very distinct grayish-yellow pollinosity, which covers all the segments except the base of first, two large subtriangular spots on second, and two smaller, less distinct spots on third, which are deep black; all segments with setulose hairs, which are longest laterally, and on apices of segments, as well as on disk of apical segment; hypopygium retracted, shining black. Legs black, hind tibiæ brownish black; fore tibia with one short bristle on slightly below middle of posterior surface, apex with one strong and one weak dorsal bristle, and one posterior apical spur; mid femur on antero-ventral surface with an irregular row of numerous, moderately long bristles, postero-ventral surface with six almost equally long bristles on basal half, then the row rapidly decreases in length and becomes closer placed, the apical half having 12 to 13 bristles on it; mid tibia with two posterior bristles, the upper just above the middle, the lower at just above one-third from apex; antero-ventral surface of hind femur with a series of about eight bristles, which begins just before middle with short, weak bristles and the last 4 to 5 of which are almost equally strong and regularly placed, the row on the postero-ventral surface is slightly weaker, more numerous, begins weak at base, lengthens on middle, and finishes at before apex equal in strength to the basal portion of series; hind tibia with one dorsal preapical bristle, two antero-dorsal, one a little above and the other below middle, two

antero-ventral, each slightly below the corresponding antero-dorsal, and one weak postero-dorsal bristle on middle; pulvulli white, long; claws long. Wings grayish; costal thorn distinct, but not large; penultimate section of fourth vein distinctly over one-half as long as last section; outer cross vein slightly waved. Calyptreæ black-brown. Halteres yellow.

Length, 4-5 mm

Type.—Cat. No. 15671, U.S.N.M.

Type-locality.—Franconia, New Hampshire (Mrs. A. T. Slosson).

Paratypes.—Ottawa, Canada; Montreal, Canada; St. John, New Brunswick, June 25, 1901 (W. McIntosh); White Mountains, New Hampshire (Morrison). This species comes close to some of those which have been placed in *Limnophora*, but the much more widely separated eyes should readily separate it from any species in that genus.

ANTHOMYIA BIDENTATA, new species.

Male.—Deep black, subopaque. Frontal triangle reddish-brown; face black, white pollinose, cheeks brown, silvery pollinose. Mesonotum without stripes or spots, lateral margins slightly gray pollinose. Abdomen deep black, with only two small grayish-white, dentate, post-marginal marks on each segment. Legs entirely black. Calyptreæ white. Halteres yellow. Wings clear.

Head rather large; frons in profile barely projecting; eyes very large, almost twice as high as long, leaving a rather narrow cheek; frontal triangle rather broad in front, almost triangular, the eyes widely separated to near ocelli where, shortly in front of that part, the frontal stripe becomes linear; orbital bristles numerous, but not strong; antennæ distinctly shorter than face; second joint with one long and several short bristles; third joint about $2\frac{1}{2}$ times as long as second; arista rather short, barely $1\frac{1}{2}$ times as long as third antennal joint, swollen at base, slightly pubescent; vibrissa slightly differentiated from the numerous, and moderately strong, marginal bristles; palpi rather above normal size, slightly spatulate, bristles numerous, but not strong, proboscis thick. Mesonotum with acrostichal bristles 2-rowed, three pairs anterior to the suture; the tuft of hairs above fore coxæ strong and dense. Abdomen short, not as long as thorax, broad, subovate; whole surface covered with rather long, setulose hairs. Fore tibia with a weak bristle on the postero-dorsal surface near middle and one on dorsal surface near to apex; mid femur with a row of hairs on postero-ventral surface, which are at base longer than the diameter of the femur and end at about middle much shorter than they are at base; mid tibia with one dorsal bristle slightly above the apical third, and two on postero-dorsal surface, one below the level of the dorsal one, and the other at about middle, all three bristles weak; hind femur, antero-ventral side, with a

series of (9-10) long bristles from base to tip, which are of about equal length throughout, but are more hairlike toward base, the postero-ventral surface has a series of equally long bristles, but they extend but little beyond the middle of femur; hind tibia with two dorsal, one antero-dorsal, and one antero-ventral bristles. Calyptræ with the under scale very much the larger.

Length 3 mm.

Type.—Cat. No. 15642, U.S.N.M.

Type-locality.—Kaslo, British Columbia (R. P. Currie). One male.