

# NOTES ON SOME AMERICAN DIPTERA OF THE GENUS FANNIA, WITH DESCRIPTIONS OF NEW SPECIES.

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## INTRODUCTION.

The species of this genus have not so far been treated collectively in any paper dealing with the American species, and the only attempt to describe any of our forms that has been made is that by Herr P. Stein<sup>1</sup> in his paper on North American Anthomyidæ. The only other species described originally from North America are *femorata* Loew, 2 species by Bigot<sup>2</sup> which probably have been recognized by Stein<sup>3</sup> as synonyms of other species (*mexicana* Bigot is a synonym of *F. canicularis* Fabricus), and 3 species described in the larval stage by Fitch,<sup>4</sup> which can not be identified either. The species described by D. W. Coquillett as *Homalomyia flavivaria*,<sup>5</sup> from Alaska, is mentioned in the present paper. It is impossible in the time at my disposal, and with the limited material available, to monograph the genus, but I have given a table of the species in the group which have the abdomen marked with three rows of spots. This characteristic is confined to one European species and those given in this paper from North America and Panama. In one or two cases South American forms possess this coloration in a certain degree, but they need not be considered here.

The principal characters for the separation of this genus from other Anthomyidæ lie, in the male, in the very large eyes, which are almost confluent above and reach to almost the lower margin of sides of head, leaving a very small, almost linear, cheek area; the frons and epistome, in profile, do not project much beyond eyes, the arista is bare, or very slightly pubescent, and the palpi and proboscis are normal. In the female the eyes are separated by about one-third the width of the head, and the cruciate frontal bristles are absent. The abdomen in the male is flat, elongate oval in outline, and the hypopygium is very inconspicuous, except in *glaucescens*

<sup>1</sup> Berl. Ent. Zeit., vol. 42, 1897.

<sup>4</sup> Amer. Ent., vol. 2, p. 137.

<sup>2</sup> Ann. Soc. Ent. France, No. 33, 1885.

<sup>5</sup> Proc. Wash. Acad. Sci., vol. 2, 1900, p. 446.

<sup>3</sup> Zeit. Hym. Dipt., vol 7, 1907, p. 273.

Zetterstedt. The wings have the sixth vein very short and the seventh bent up sharply round end of sixth. Several species have the under calyptra unprojecting, and would not readily lend themselves to arrangement according to the key given for the genera of Anthomyidæ in Williston's Manual; but the venation, coupled with the Syrphus-like abdomen of the males, should indicate their generic position readily enough. The other species included in this paper, besides those given in table at beginning, are new to science or to the American list. The notes given with each indicate to what species they are most closely allied, and may probably lead to their identification in many other collections in this country. The drawings given of the legs are not drawn to the same scale, but are true representations individually of the relative lengths and position of the bristles.

Of the 24 species of *Fannia* already described recognizably, or recorded, from the area covered by the species in the present paper, 13 are European, and to these must be added the 5 herewith recorded, making a total of 18 European species, which is a rather large percentage for a Dipterous family.

KEY TO SPECIES FANNIA, WITH TRIPUNCTATE ABDOMEN.

1. Hind tibia with long, soft, hairlike bristles on ventral surfaces....*pusio*, p. 623.  
Hind tibia without long, hairlike, ventral bristles; at most a few short bristles present..... 2.
2. Dorsum of thorax gray, or yellowish pollinose, with distinct longitudinal stripes.. 3.  
Dorsum of thorax shining black, sometimes slightly pollinose, but never distinctly striped..... 4.
3. Large species 5 mm. Hind femora tuberculate near apex on ventral surface, tuberculate portion with a fasciculus of long curved bristles.....*grandis*, p. 623.  
Smaller species 2½-3 mm. Hind femora not tuberculate and without fasciculus.  
*vittata*, p. 623.
4. Hind femora with a series of 8-9 straight, fine, close-placed, hairlike bristles on middle third of anteroventral surface; hind tibia with only one anteroventral bristle at near middle.....*trimaculata*, p. 623.  
Hind femora without a series of hairlike bristles at middle, the whole of anteroventral surface with more widely placed bristles which are not of a regular length..... 5.
5. Hind femora with a series of 3 long, hairlike, anteroventral bristles, the middle one duplicated, the first at about middle, the last at two-fifths from apex, and a rather shorter but much stronger bristle midway between the last and the tip of femur.....*conspicua*, p. 624.  
Hind femora otherwise bristled..... 6.
6. Legs mostly yellow; hind femora with 1-2 strong bristles at near apex on anteroventral surface, and a group of long, hairlike bristles on a slightly raised portion, at apical third, on posteroventral surface; hind tibiae with 2 anteroventral bristled.....*benjamini*, p. 625.  
Legs almost entirely black; hind femora without any distinct raised portion, or group of hairs at apical third..... 7.
7. Hind tibiae with 1 anteroventral bristle..... 8.  
Hind tibiae with 3-4 anteroventral bristles.....*leucosticta*, p. 627.
8. Hind femur with 6-7 strong anteroventral bristles on apical third..*femoralis*, p. 627.  
Hind femur without those bristles.....*howardi*, p. 626.

## DESCRIPTION OF SPECIES.

## FANNIA PUSIO (Wiedemann).

Fig. 3.

*Anthomyia pusio* WIEDEMANN, Aussereurp. Zwielf. Ins., vol. 2, 1830, p. 437.  
*Homalomyia femorata* LOEW, Wien. Ent. Monatsch., vol. 5, 1870, p. 42.

This species is easily separable from any of the others in this group by the long-haired hind tibiæ. The hind femur has the apical third slightly swollen, the dilated portion with a series of 6-7 long hairlike, curled bristles on the anteroventral surface and several shorter, finer hairs on the posteroventral surface. Size  $2\frac{1}{2}$ - $3\frac{1}{2}$  mm. Originally described from South America and redescribed by Loew, from Cuba, as *femorata*. Represented in U. S. National Museum collection by specimens from Florida, no locality (collection Coquillett); Miami, Florida (C. H. T. Townsend); Brownsville, Texas (McMillan and Marshall); a series of 13 specimens bred from cages containing larvæ and pupæ of *Galerucella luteola* Müller (the elm leaf beetle), with note that the larvæ of this and another Anthomyid had destroyed all the pupæ; Guadeloupe, West Indies (Busck); and Trinidad, West Indies (Busck). Though the larvæ of *G. luteola* above referred to were obtained from various States—Connecticut, New York, New Jersey, and New Hampshire—it is not improbable that the Anthomyids obtained access to the cages in Washington.

## FANNIA GRANDIS Malloch.

Fig. 1.

*Fannia grandis* MALLOCH, Smiths. Misc. Coll., vol. 59, No. 17, July, 1912, p. 3.

This species is distinguishable by its size and coloration, as well as the fasciculate hind femur, from any other species of the group except one or two from Bolivia in South America. It was originally described from Panama, and I have not seen it from any other locality.

## FANNIA VITTATA Malloch.

*Fannia vittata* MALLOCH, Smith. Misc. Coll., vol. 59, No. 17, 1912, p. 1.

Unlike any other described species in coloration and armature of legs. Described from Panama and not recognized so far from any other locality.

## FANNIA TRIMACULATA (Stein).

Fig. 8.

*Homalomyia trimaculata* STEIN, Berl. Ent. Zeit., vol. 42, 1897, p. 176.

This species is separable from *femoralis* Stein, to which it is most closely related, by the bristling of the hind femora. Both these species have a number of long, curled, hair-like bristles on the postero-

ventral surface near the apex on hind femora, but the regular comb-like series of hair-like bristles is absent from the middle portion in *femorialis*, the whole antero-ventral surface being occupied by a row of wider spaced, more irregular bristles, and at apex armed much as in *pusio*, with 6-7 long bristles. In *trimaculata* the antero-ventral surface of femur is bare except for the series on the middle and one much stronger bristle at near the apex.

Originally described from Jamaica. Represented in collection by specimens from Jamaica (collection Coquillett); Kingston, Jamaica (M. Grabham); Santo Domingo, West Indies (Busck).

FANNIA CONSPICUA, new species.

Fig. 2.

*Male*.—Brownish black. Frontal orbits silvered, central stripe velvety black. Antennæ with basal two joints and base of third yellow; arista yellow at base. Facial orbits silvered, face white dusted, margin of mouth yellow. Palpi yellow. Thorax slightly shining, disk of mesonotum, and pleuræ gray dusted. Abdomen gray-brown; basal two segments, except central spot and lateral posterior margins, and anterior half of third segment translucent yellow; all segments slightly whitish dusted; viewed from behind the first three segments have a central and lateral black spot each, the apical segments are much suffused with black. Legs yellow; coxæ, femora, and tarsi browned, the latter most distinctly. Wings clear, veins yellowish brown. Calyptræ white. Halteres yellow.

Frontal stripe linear, the central stripe almost obliterated. Antennæ short of mouth margin, arista bare. Palpi of normal size. Acrostical bristles three-rowed from the second pair backwards. Hypopygium normal. Fore tibia with one preapical bristle. Mid femora; antero-ventral surface with 5-6 weak, short, hair-like, irregularly spaced bristles to near middle, 4 longer and stronger bristles beyond them to three-sevenths from apex, and a series, 14-15, of short comb-like bristles beyond them, those on the constricted portion being very close-placed; postero-ventral surface with a regular row of hair-like bristles on the basal two-thirds, those on the apical third longer and much stronger. Mid tibia slightly dilated on apical half; the normal bristles present; pubescence on ventral surface sparse and very short, only longer on beyond middle. Hind femur swollen, but not tuberculate; a series of three hairs on antero-ventral surface, the first just at middle and the last as about two-fifths from apex, a stronger, but shorter bristle midway from last of the series to tip, the middle bristle of series is duplicated by a slightly weaker, hair-like bristle on nearer ventral surface, otherwise the antero-ventral surface is almost bare; postero-ventral surface with three long hairs at about

apical third which, are apparently the culmination of a series of very short hairs which runs along the posterior surface and descends at just before this part; hind tibia with 2 dorsal, 1 antero-dorsal, and 2 antero-ventral bristles. Last portion of fourth vein almost three times as long as penultimate; outer cross vein curved and very slightly longer than penultimate section of fourth vein. Lower scale of calyptæ much larger than upper. Length 4 mm.

*Type*.—Cat. No. 15424, U.S.N.M.

*Locality*.—Williams, Arizona (H. S. Barber), one male.

FANNIA BENJAMINI, new species.

Fig. 9.

*Male*.—Black-brown. Frontal orbits silvered, the central stripe velvety black. Antennæ brown, the two basal joints yellow; arista brown. Face grayish-white dusted, upper mouth margin yellowish. Palpi yellow. Disk of mesonotum shining brown, unstriped, lateral and posterior margins gray dusted; pleuræ black-brown, whitish dusted, sutures yellowish. Abdomen black-brown, subshining; all segments with a central black stripe, which is interrupted at the posterior margins of segments, and a rounded spot of same color on each side of all segments; entire abdomen, except on black spots, covered with whitish dusting; numerous bristles on segments; hypopygium inconspicuous. Legs yellow, coxæ and femora browned, the tarsi blackish. Wings clear, veins yellowish. Calyptæ grayish. Halteres yellow.

Frontal stripe linear. Third antennal joint at least half its own length short of reaching mouth margin; arista bare. Acrostical bristles three-rowed from in front, 2 pairs of pre-sutural and 3 pairs of post-sutural dorso-central bristles. Fore tibia with one pre-apical bristle; mid femur, antero-ventral surface with 7-8 bristles on basal half, which are very short and weak at base, but increase in length and strength to middle, and are gradually wider placed, apical half with a comb-like row of bristles, 18-20, the first three of which are of equal length and much stronger than the others, and the remainder gradually reduced in size on the constricted portion at apex of femur; postero-ventral surface with a somewhat similar row of distinctly weaker bristles. Mid tibia with the normal bristling of the group; apical half swollen on ventral surface; the pubescence short. Hind femur with a few short bristles on antero-ventral surface, and two strong bristles at near apex; postero-ventral surface almost bare, slightly swollen at apical third and with a group of 8-9 long, fine, hair-like bristles in a group on the raised part. Hind tibia with 2 dorsal, 1 antero-dorsal, and 2 antero-ventral bristles.

Length 3-3½ mm.

*Female*.—Frons at vertex one-third as wide as head, slightly divergent-sided, the width at above antennæ being about one-fourth more than at vertex; orbits shining, but obscured by whitish dusting; widest at mid way to vertex, and at this part one and one-half times as wide as frontal stripe at same part; middle stripe brownish red with whitish dusting. Palpi slightly spatulate. Mesonotum more thickly dusted than in the male, and with indications of three longitudinal, very fine, brown lines. Abdomen marked as in male, but the spots more diffused. Legs with only the fore femora slightly browned, and the tarsi black; bristling normal; the hind femur with 2 antero-ventral widely placed bristles on apical third, the hind tibia as in male. In other respects as male.

*Type and paratypes*.—Cat. No. 15425, U.S.N.M.

*Type-locality*.—Mountains near Claremont, California (C. F. Baker). One male and five females. One male from Santa Clara County, California (C. F. Baker). There are also 3 females from Grand Canyon, Arkansas, taken at a height of about 7,000 feet, marked "very annoying by buzzing round eyes, nose, and mouth" (Schwarz and Barber), and 5 females from Cayamas and Baracoa, Cuba (E. A. Schwarz, and A. Busck).

This species I have named in honor of Dr. Marcus Benjamin, editor of Proceedings of the United States National Museum.

FANNIA HOWARDI, new species.

*Male*.—Very similar to *trimaculata* Stein, but differing in the bristling of the hind femur. In *trimaculata* there is a short row of close-placed bristles on the middle third, as shown in fig. 7, in *howardi* the same surface, antero-ventral, has an irregular row of much wider placed bristles which extends from base to tip third, the strong bristle present near tip in *trimaculata* being also present in *howardi*. On the postero-ventral surface the row of hairs in *howardi* begins at the base and culminates in 4-5 long curled hairlike bristles at the tip fourth, in *trimaculata* this same row begins at middle with very short hairs and finishes as in *howardi*, but the bristles are closer placed. In other respects the species are very similar, though in some cases there is an additional bristle present on the postero-dorsal surface of mid tibia in *trimaculata*, *howardi* having only the normal one.

*Type*.—Cat. No. 15444, U.S.N.M.

*Locality*.—Washington, District of Columbia (collection Coquillett).

One male, Holly Spring, Mississippi (F. W. Mally); and a series bred from cages containing larvæ and pupæ of the Elmleaf Beetle at the same time as the series of *pusio* was obtained.

Named in honor of Dr. L. O. Howard, Chief of the Bureau of Entomology.

## FANNIA FEMORALIS (Stein).

*Homalomyia femoralis* STEIN, Berlin. Ent. Zeitsch., vol. 42, 1897, p. 282.

It is unfortunate that Stein chose this name for this species as it is calculated to cause confusion with *femorata* Loew., which is a synonym of *pusio* Wiedemann. This species is most closely allied to *trimaculata* Stein, from which it may be separated by the characters mentioned under the note on that species.

There is only one specimen of this species in collection, which is in rather poor condition, from Winslow, Arizona (E. S. G. Titus).

## FANNIA LEUCOSTICTA (Meigen).

*Anthomyia leucosticta* MEIGEN, Syst. Besch., vol. 7, 1826, p. 328, species 31, male.

*Homalomyia brevis* STEIN, Berlin. Ent. Zeitsch., vol. 40, 1895, p. 51.

I have never met with this species, which according to Stein has much the habitus of an *Azelia*. The characters given in the table should serve to identify it.

## FANNIA SOCIELLA (Zetterstedt).

Fig. 10.

*Aricia sociella* ZETTERSTEDT, Dipt. Scand., vol. 4, 1845, p. 1564.

There are in the collection here 7 specimens of this species—4 from White Mountains, New Hampshire (Morrison?); 2 from Mount Washington, New Hampshire (Geo. Dimmock); and 1 from Franconia, New Hampshire (Mrs. A. T. Slosson). The male may be separated from any other described species by the absence of the preapical dorsal bristle from the hind tibia, and the possession of a series of three very strong bristles on middle of antero-ventral surface of mid femur, which are conspicuous from the other bristles.

## FANNIA POSTICA (Stein).

Fig. 7.

*Homalomyia postica* STEIN, Berlin. Ent. Zeitsch., vol. 40, 1895, p. 89.

I have before me 2 specimens which agree with a Scotch specimen of this species. The locality is White Mountains, New Hampshire (Morrison). The species comes very close to *serena* Fallen, but besides being smaller, it has a series of (8-9) bristles on apical half of antero-ventral surface on hind femur, which increase in length toward apex. *Serena* has generally 2-3 longer and stronger bristles, but not a regular row as in *postica*.

## FANNIA MORRISONI, new species.

Fig. 11.

*Male*.—Deep black, subopaque. Only the halteres yellow. Wings fuscous, especially on fore margin, veins black-brown.

Frontal orbits silvered, middle stripe from behind appearing velvety black, from above, brown, at the narrowest part at least as wide as

orbits; face with brownish dusting; third antennal joint more than twice as long as second; arista bare; palpi normal. Mesonotum unstriped; brown-gray pollinose on margins; acrostical bristles 3-rowed from third anterior pair; 2 pairs of presuturals. Abdomen ovate, viewed from in front opaque black, from behind with the anterior and lateral margins of segments distinctly white pollinose, leaving a black central stripe and posterior triangular dilatations on each segment; all segments with strong hairs; hypopygium inconspicuous, with apical, central depression. Fore legs with normal bristling. Mid femora with a conspicuous, long, ventral, basal, hair-like bristle; antero-ventral surface with a row of about 20-22 bristles which begin at base rather weak and gradually become longer and rather wider spaced to middle, then decrease gradually in size and become closer placed on the slightly narrowed apical third; the postero-ventral row is of similar nature, but the basal 3-4 are distinctly longer than those on the base of antero-ventral surface; posterior surface with a row of long bristles, which are curled and hair-like to beyond the middle and then stronger, especially the last 3-4 on tip third. Mid tibia gradually thickened toward apex from middle, the pubescence distinct though short; bristling normal. Hind femora with weak hairs on antero-ventral surface, only two very strong bristles on apical third, preceded by two weaker bristles, which are much closer placed; dorsal surfaces, apical third, with several strong bristles. Hind tibia as figure 11. Wings with last section of fourth vein two and one-half times as long as penultimate section. Under scale of calyptræ distinctly longer than upper.

Length,  $4\frac{1}{2}$  mm.

*Type*.—Cat. No. 15426, U.S.N.M.

One male, White Mountains, New Hampshire (Morrison).

This species is allied to *carbonella* Stein, but that species has the calyptræ equal in size or very slightly unequal, and the halteres are black. It also comes very close to *atra* Stein, and *nigra* Malloch. From the first named it differs in the bristling of the hind femora, and from the latter in the absence of the additional bristle above the normal one present on mid tibia, as well as in some minor particulars.

Named after H. K. Morrison, who collected the specimen.

FANNIA ÆTHIOPS, new species.

Figs. 4 and 5.

*Male*.—Black, distinctly shining, but not glossy. Mesonotum unstriped. Abdomen black-brown, with black central stripe, which is very slightly dilated posteriorly. Legs black, the fore knees inconspicuously yellow. Calyptræ brown. Halteres black-brown.

Eyes separated by a narrow stripe, orbits silvered, central stripe velvety black; antennæ elongate, the third joint reaching to less

than its apical width from mouth margin; arista bare; face gray dusted. Mesonotum with acrostical bristles 3-rowed from fourth pair, only 1 pair of presutural dorso-centrals. Abdomen elongate, shaped and colored much as in *serena* Fallen; hypopygium of moderate size, with apical depression, symmetrical. Fore legs of normal shape and bristling. Mid femora very noticeably constricted on apical fourth; antero-ventral surface with a row of bristles, the first 6 long and widely spaced, reaching to middle, then there is a row of about 9 much shorter and closer placed bristles, which decrease rapidly in size to beginning of constriction, where they cease, the last 3-4 are duplicated, the constricted portion is entirely bare except for 4-5 very minute bristles at apex; the postero-ventral surface has much longer, wider-spaced bristles, which become shorter, but stronger, from base to constriction, the constricted part bare, and 4-5 bristles rather longer than those on antero-ventral surface at apex; posterior surface with long curled bristles. Mid tibia thickened on apical half, the pubescence on ventral surface distinct on thickened portion; bristling normal; mid metatarsus with a group of short bristles forming a fasciculus at base. Hind femora bare on ventral surfaces except for 1-2 bristles on apical third of antero-ventral surface, and 4-5 on same part of postero-ventral surface. Hind tibiae with 2 dorsal, 1 antero-dorsal, and 1 antero-ventral bristles. Last section of fourth vein barely more than twice as long as penultimate section, outer cross-vein at about one-half its own length from end of fifth vein. Under scale of calyptæ very slightly larger than upper.

Length 3-4 mm.

*Type*.—Cat. No. 15427, U.S.N.M.

This species has the fasciculus at base of mid metatarsus so weak that it is easily overlooked. It, however, belongs to the same group as *aerea* Zetterstedt and *armata* Meigen. It is more closely allied to *umbrosa* Stein, but the description of that species gives a series of 10 bristles on the posterior femur instead of the 4-5 which occur in all the specimens before me. There are also some minor differences between this species and the description given by Stein for *umbrosa*, which prevent me identifying this species with his.

*Type-locality*.—White Mountains, New Hampshire (Morrison?), three males.

Ainsworth, British Columbia, one male (R. P. Currie); Humboldt County, California, one male (H. S. Barber). The last-mentioned two specimens have the halteres yellowish, which is probably due to their being rather immature. A number of specimens which are standing in the collection as *Homalomyia flavibasis* Stein, belong to *æthiops*; the localities are Virgins Bay, Popoff Island, Muirs Inlet, and Sitka, Alaska (Harriman Alaska Expedition, T. Kincaid).

## FANNIA GENUALIS (Stein).

Fig. 12.

*Homalomyia genualis* STEIN, Berl. Ent. Zeitschr., vol. 40, 1895, p. 126.

There is a single male of this species in the collection from White Mountains, New Hampshire (Morrison?). It may be known from any other American species by the broadly whitish-yellow knees and bases of tibiae. The fore tibia has usually a small bristle in addition to the preapical one, the antero-ventral row of bristles on the mid femur is very slightly interrupted at the narrowed part, which is not much constricted, and the hind femur has a row of hairlike bristles from base to apical third on the postero-ventral surface, the antero-ventral row being shorter and stronger and increasing in size from base to apex.

Originally described from Germany and England.

## FANNIA KOWARZI (Stein).

Fig. 6.

*Homalomyia kowarzi* STEIN, Berl. Ent. Zeitschr., vol. 40, 1895, p. 83.

A single male in collection from Franconia, New Hampshire (Mrs. A. T. Slosson). This species belongs to the group with two bristles on the antero- and postero-dorsal surfaces of mid tibia. The hind femur is peculiar, however, in having a fasciculus of hairs at about apical third on the postero-ventral surface, and one bristle at near apex on antero-ventral surface, otherwise the ventral surfaces are bare. Hind tibia with 2 dorsal, 1 antero-dorsal, 2 antero-ventral, and 4-5 hairlike postero-ventral bristles, the latter confined to apical half.

Originally described from England.

## FANNIA PRETIOSA (Schiner).

*Homalomyia pretiosa* SCHINER, Fauna Austr., vol. 1, 1862, p. 654.

I have seen two specimens of this species collected by Mr. C. W. Johnson. One male, summit of Mount Ascutney, Vermont, July 11, 1908, and another from Machias, Maine.

This species is most closely allied to *splendida* Stein, but may be readily separated from that species by the bristling of the hind tibia, which has 1-3 bristles on the antero-ventral surface, instead of the 4-5 longer antero-ventral bristles and numerous shorter hairs, which are situated on the postero-ventral surface. The mid femur in *pretiosa* has the apical third very slightly constricted, and the row of bristles on the antero-ventral surface is uninterrupted on the constricted portion. The scutellum in *pretiosa* is pale at the apex, while in *splendida* it is entirely black.

## FANNIA ORNATA (Meigen).

*Anthomyia ornata* MEIGEN, Syst. Besch., vol. 5, 1826, p. 191.

This species has been recorded by Stein<sup>1</sup> from Alaska (Sitka), a female specimen collected by Mannerheim being in the Berlin Museum.

It is very difficult to separate *splendida*<sup>2</sup> from *ornata*, and it would have been better had Stein compared the former with *ornata* rather than with *pretiosa*, when he described it, as *pretiosa* is very easily distinguished from either of the other two.

I have seen only a single example of both of these species, *splendida* from Ashford, Washington (Dyar and Caudell), and *ornata* with the date June 20, 1894, No. 513, (collection Coquillett), no other data. It may be that this last is an European specimen, but there is no means of deciding.

The only distinguishing characters by means of which *ornata* may be separated from *splendida* lie in the bristling of the hind tibiæ. In *ornata* the hairs are very long and curl downward toward the tip of the tibiæ, while in *splendida* these hairs are comparatively shorter, and straight, as well as being less numerous. The basal joint of the hind tarsus has also, in *ornata*, hairs on the posterior side, which are longer than in other species in the group, whereas in *splendida* this joint has only normal hairing.

## HOMALOMYIA FLAVIVARIA Coquillett.

*Homalomyia flavivaria* COQUILLET, Proc. Wash. Acad. Sci., vol. 2, 1900, p. 446.

This is a synonym of *Cæatomyia subpellucens* Zetterstedt, which was recorded from Alaska by Osten Sacken in his Catalogue in 1878. Specimens are in the collection from White Mountains, New Hampshire, (Morrison), and I have also seen a specimen in C. W. Johnson's collection from Maine. The type of *flavivaria* and the series of specimens from Alaska are identical in every respect with those from New Hampshire.

## EXPLANATION OF PLATE 77.

- Fig. 1. Hind femur of *Fannia grandis*, anterior side.
2. Hind femur of *Fannia conspicua*, anterior side.
3. Hind femur of *Fannia pusio*, anterior side.
4. Mid metatarsus of *Fannia æthiops*.
5. Hind femur of *Fannia æthiops*, posterior side.
6. Hind femur of *Fannia kowarzi*, posterior side.
7. Hind femur of *Fannia postica*, anterior side.
8. Hind femur of *Fannia trimaculata*, anterior side.
9. Hind femur of *Fannia benjamini*, posterior side.
10. Mid femur of *Fannia sociella*, anterior side.
11. Hind tibia of *Fannia morrisoni*, anterior side.
12. Hind femur of *Fannia genualis*, posterior side.

<sup>1</sup> Ann. Mus. Nat. Hungar., vol. 2, 1904, p. 458.

<sup>2</sup> *Homalomyia splendida* Stein, Berl. entom. Zeitschr., vol. 42, 1897, p. 170.





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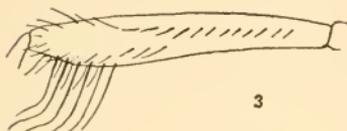
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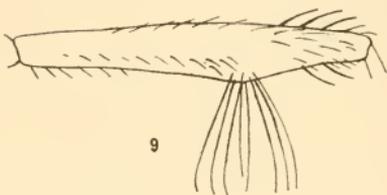
2



8



3



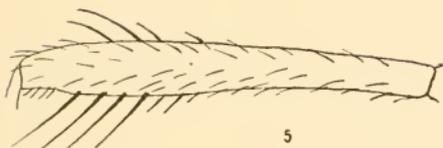
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12

DETAILS OF LEGS OF SPECIES OF FANNIA.

FOR DESCRIPTION OF PLATE SEE PAGE 631.

