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SUPPLEMENTARY NOTES ON THE FAMILY ANTHOMYIIDAE OF JAPAN, I (DIPTERA)

By MASAAKI SUWA

Abstract

SUWA, M. 1977. Supplementary notes on the family Anthomyiidae of Japan, I (Diptera). *Ins. matsum. n. s.* 10: 1–16, 26 figs.

This paper is the first supplement to "Anthomyiidae of Japan," Ins. matsum. n. s. 4 (1974), and deals with 14 species. *Paraprosalpia kurahashii* and *Delia bipartita* are described as new to science, the latter being identical with *criniventris*: Suwa, nec Zetterstedt. *Delia tenuis* Suwa is renamed *Delia tenuiformis*. *Lasiomma curtigena* (Ringdahl), *Delia fabricii* (Holmgren) and *Pegomya maculata* Stein are new to Japan. *Meliniella watanabei* Suwa, *Delia karasawana* Suwa and *Pegomya angustiorbitae* Suwa are suppressed as synonyms of *Meliniella luteipennis* (Ringdahl), *Delia interflua* (Pandellé) and *Pegomya seitenstettensis* (Strobl). *Delia nuda*: Suwa, nec Strobl is identical with *Delia brunnescens* (Zetterstedt). *Hyporites* sp. A of Suwa is the female of *Hyporites shakshain* Suwa. *Delia planipalpis* (Stein) (=*Delia pilipyga* (Villeneuve)), *Delia flabellifera* (Pandellé) (=*Delia tristriata* (Stein)) and *Hydrophoria frontata* (Zetterstedt) are shortly discussed.

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Contents

Introduction

In 1974 I published a paper on the Anthomyiidae of Japan, enumerating about 170 species of the family as occurring in Japan. This is the first supplement to that work and deals with 14 species.

Prof. Hennig's monograph on the Palaearctic Anthomyiidae, of which the first part appeared in 1966, is now coming to a conclusion, with descriptions of about 500 species and detailed synonymies. My 1974 work was largely based on his monograph published up to 1973. Now I acknowledge some errors I made in that work as given below. On this occasion two new and three other species are added to the Japanese fauna and some little-known species are discussed.

Descriptions and corrections

1. *Meliniella luteipennis* (Ringdahl) comb. nov.

Melinia luteipennis Ringdahl, 1950: 189. *Meliniella watanabei* Suwa, 1974: 45, syn. nov.

Dr. Ackland has kindly called my attention to that my new species *M. watanabei* is in reality synonymous with *Melinia luteipennis* Ringdahl, which was originally described from Sweden and has been known also from Denmark and England (Collin, 1955). Having read the original description of *luteipennis* I have failed to find any significant differences between the two, and have come to the conclusion that they are conspecific. On this species Hennig (1973, in foot-note on page 487) has given a comment as follows: ".... die [*luteipennis*] offenbar mit *Hylemyia griseifrons* Séguy, 1923 identisch ist,.... Für die Beschreibung der Art muss daher auf den Nachtrag am Schluss der Bearbeitung der Anthomyiidae verwiesen werden." Then, a detailed comparison between *luteipennis* and *griseifrons* will be given by him and show their identity. *H. griseifrons* was originally described from the Pyrenees. After all it seems that *M. luteipennis* is widely distributed in northern or mountaneous regions of the Old World.

2. *Hyporites shakshain* Suwa

Hyporites shakshain Suwa, 1974: 59. *Hyporites* sp. A: Suwa, 1974: 60.

Material examined.* Hokkaidô: – Jôzan-kei, 1♂ (type of *H. shakshain*), 16-vi-66 (M. Miyazaki); Mt. Daisetsu, 3♀♀ (specimens on which *Hyporites* sp. A is based), 17–24-vii-68, & 1♀, 23-vii-68 (T. Kocha); Shirataki, 1♂, 4♀♀, 8–9-vii-74; Rubeshibe, 1♂, 1♀, 4–5-vii-74; Maruseppu, 1♀, 10-vii-74.

Hyporites shakshain was originally described from a single male specimen. *Hyporites* sp. A was originally based on 3 female specimens, which seemed to differ from *shakshain* by the darker colouration and other characters yet quite close to the latter. Some further specimens of *Hyporites* were recently collected in Hokkaidô as given above. Having examined them I have found that the supposed difference between *shakshain* and *Hyporites* sp. A is in reality sexual and that the darker form, *Hyporites* sp. A, is the female of *shakshain*. On this occasion some notes should be given as supplement to the original description: –

*) The specimens are collected by myself unless otherwise stated.

♂. Body-length 7–9 mm. A_3* about 1.4–1.5 times as long as wide; cheeks about 1.2–1.4 times as high as profrons-width. Fore tibia with 1 strong and 1–2 weak *ad*, 1–2 *pd* and 1–2 *pv*; t_2 with 1–2 *av*, 2–3 *ad*, 2–3 *pd* and 2–3 *pv*.

♀. Body-length 8–10.5 mm. Frons twice or slightly less than twice as wide as anterior ocellus; interfrontalia as wide as or a little wider than anterior ocellus.

3. *Paraprosalpia kurahashii* sp. nov.

Type-material. Honshû – Sunodani, Komatsu, Ishikawa-ken, 2♂♂ (one the holotype), 1♀, 12-v-73 (H. Kurahashi); Chichibu, Saitama-ken, 1♂, 11-v-74 (K. Hara); Futakuchi-Onsen, Miyagi-ken, 1♂, 3♀♀, 7-vi-74 (T. Hattori). The paratypes from Sunodani are deposited in the Kurahashi collection, the other specimens in the collection of Entomological Institute, Hokkaidô University.

♂. Body-length 6–7 mm, wing-length 5–6 mm. Body including legs blackish in ground colour, and densely whitish grey pollinose. Interfrontalia more or less brownish near lunule, and densely whitish grey pollinose; parafacials and cheeks silvery grey in pollinosity; antennae black; haustellum with mentum black and polished; palpi blackish. Thorax whitish grey pollinose; mesonotum brownish pollinose except marginally, when viewed from behind with broad black median and lateral vittae; scutellum brownish pollinose. Abdomen with tessellation in some lights; median vitta broadening caudad on each tergite, and obscurely margined; hind marginal band present though not sharp or broad; 5th sternite narrowly shining only along inner margin of processes, and almost wholly covered with dense whitish grey pollen. Wings tinged with brown; calyptrae whitish, slightly tinged with yellow on margin; halteres yellow at knob.

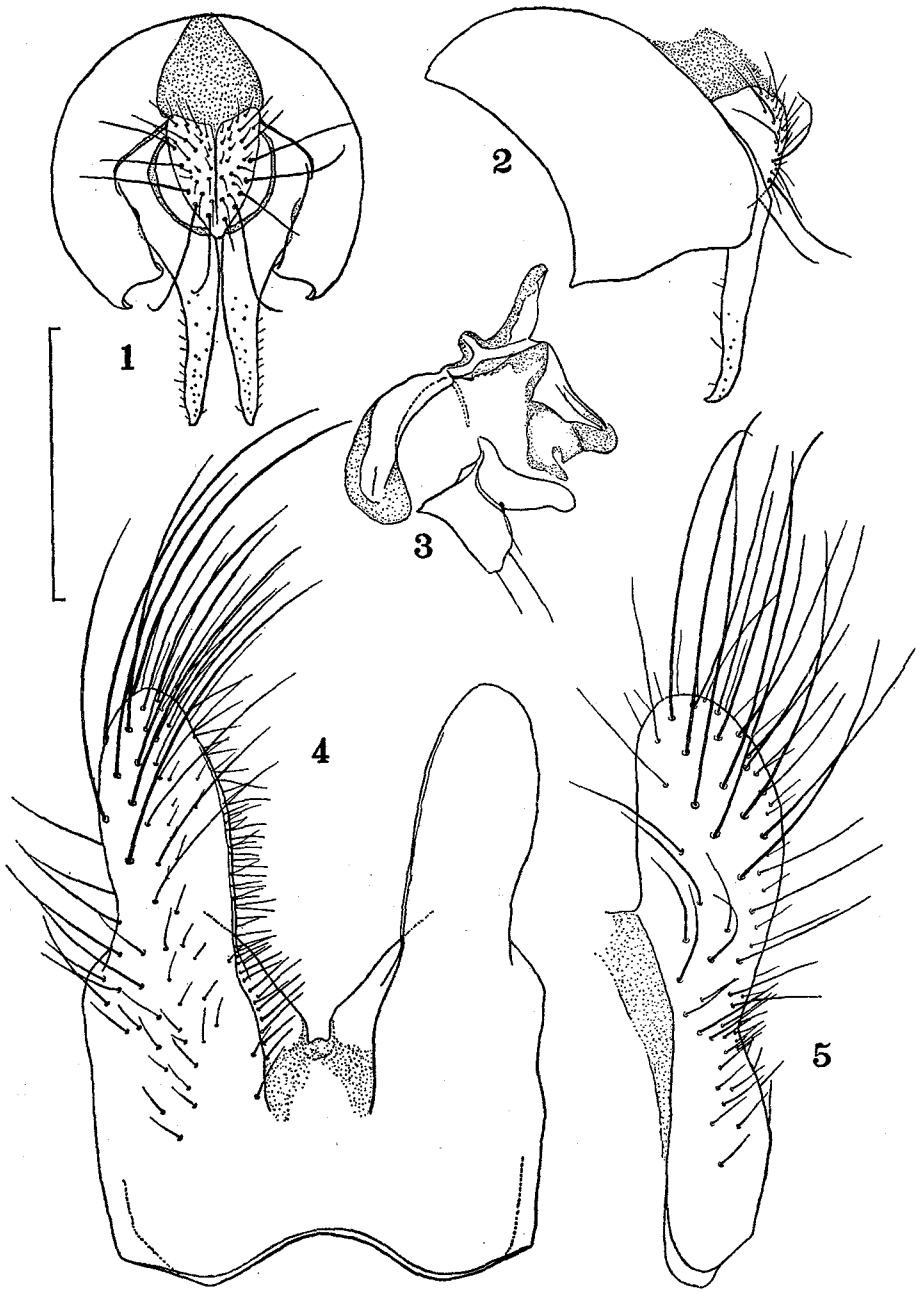
Eyes sparsely haired; head distinctly protruded forwards at lunule, and about 1.1–1.2 times as high as long; frons wide, about two-sevenths of head-width; interfrontalia about 1.5–1.7 times as wide as distance between posterior ocelli inclusive, with a pair of strong *if*; parafrontals about one-third as wide as interfrontalia at the narrowest part, with some (4–6) *ori*, which are associated with some minute setulae, and with 1 or 2 *ors*, which are proclinate or directed outwards; A_3 about twice as long as wide; arista practically bare and not geniculate, 2nd segment being not so lengthened as in the *fractiseta*-group; profrons and cheeks respectively more or less wider and higher than interfrontal width; parafacials at the narrowest part slightly narrower than A_3; epistoma distantly behind frons at lunule.

Mesonotum with about 4 irregular pairs of *pre acr*, the rows being narrowly separated from each other; 1 strong and 1 or 2 distinct or fine *ph*; *pra* longer than anterior *ntpl*; *stpl* 1:2; prosternum bare.

Abdomen conical, about twice as long as wide; 5th sternite (Figs. 4 & 5) wholly setose on processes, which are strongly edged on inner margin.

Fore tibia with 1 *ad* and 1 *pv*, and with 3 strong apical setae (*d*, *pd* and *pv*); f_2 with no distinct *av*, and on basal half with some slender *pv*, the longest one being about 1.5 times as long as height of the femur; t_2 with no *av*, 1 *ad*, 2 *pd* and 1 or 2 *p*; f_3 with a complete row of 8–10 long *av*, the longest one being about 1.5 times as long as height of the femur, and on basal two-thirds with 8–10 slender *pv*, which

*) Terminology and measurement used in this paper follow Suwa (1974).



Figs. 1–5. *Paraprosalpia kurahashii* sp. nov., ♂ (holotype): 1, hypopygium, dorsal view; 2, *ditto*, lateral view; 3, aedeagus; 4, 5th sternite, ventral view; 5, *ditto*, lateral view. Scale 0.5 mm (same for succeeding figures).

are arranged in 2 rows on basal third of the femur, the longest one 1.5 or more times as long as height of the femur; t_3 with 1 strong and 0–2 additional *av*, 2 strong and 0–2 additional *ad*, and 3 (4 in the holotype on the right leg) *pd*, and with no *pv*. Wings with costal thorns short; costa nearly bare on ventral surface; *m-m* nearly upright and straight.

♀. Frons about two-fifths of head in width; interfrontalia about twice as wide as distance between posterior ocelli inclusive; parafrontals with 2 (1 in the specimen from Sunodani) proclinate and 1 reclinate *ors*; profrons and cheeks respectively slightly less in width and height than interfrontal width. Mesonotum with 1 *ph*. Abdomen depressed and ovoid in dorsal view.

Judging from some characters of the male, e.g., the rather wide frons, the pollinose 5th sternite, the t_2 with no *av*, and the t_3 with no *pv*, this species is more similar to *P. laminata* (Zetterstedt) than to other species of the genus. *P. kurahashii* is, however, distinguishable from *laminata* in the male by the interfrontalia wider than distance between the posterior ocelli inclusive, by the presence of strong *ors* and by the 5th sternite with longer setae (cf. textfig. 96 on page 92 of Hennig, 1966).

4. *Lasiomma curtigena* (Ringdahl)

Hylemyia curtigena Ringdahl, 1935: 28. *Hylemyia* (*Pegohylemyia*) *curtigena*: Tiensuu, 1935: 21. *Lasiomma curtigena*: Hennig, 1972: 431.

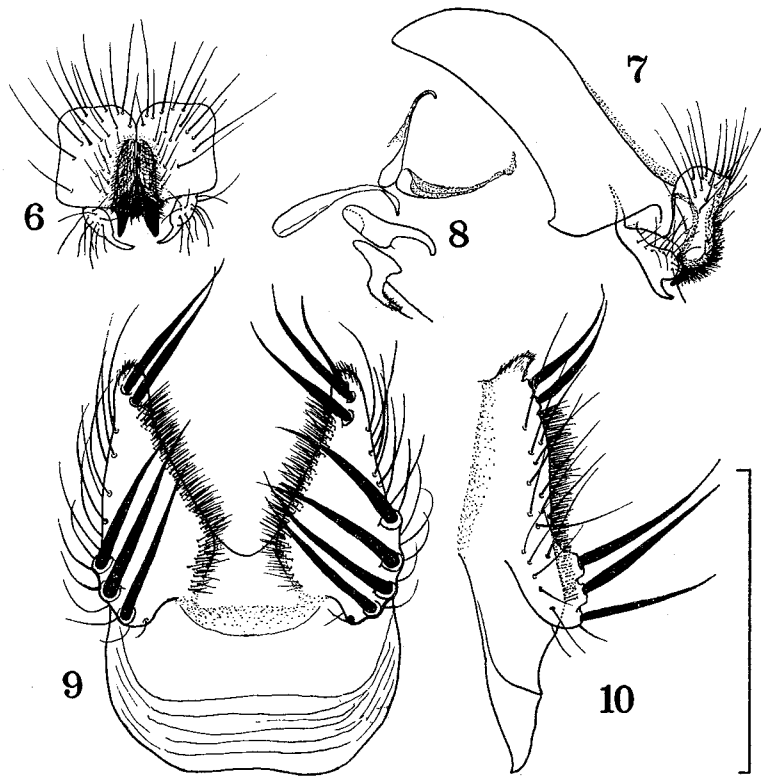
Material examined. Honshû – Ôtaki, Saitama-ken, 1♂, 16-vi-74 (K. Hara); Karisaka, Saitama-ken, 1♂, 26-vii-74 (K. Hara); Ryôkami, Saitama-ken, 1♂, 1-viii-75 (K. Hara).

In general appearance this species resembles *Lasiomma meadei* (Kowarz), from which it can, however, be readily distinguished by the peculiar 5th sternite of the male (Figs. 9 & 10) and the chaetotaxy of the legs. *L. curtigena* has been known only from Finnland. On the basis of the specimens at hand Japan is given as a new locality of this species.

♂. Body-length 4–5 mm. Body black in ground colour, and whitish grey in pollinosity. Mesonotum faintly tinged with brown in pollinosity, and when viewed from behind with a broad black median vitta before the suture and broad lateral ones behind the suture. Abdomen slightly bluish in pollinosity, which is of fine texture, and with a broad median vitta and narrow fore marginal bands. Calyptrae whitish, on margin slightly yellowish.

Eyes sparsely haired; head about 1.3–1.4 times as high as long; frons about half as wide as anterior ocellus; parafrontals contiguous to each other, or nearly so, with 3 *ori* and no *ors*; interfrontalia with 2 pairs of distinct setae, of which the lower may be dislocated *ori*; A_3 about 1.7 times as long as wide; arista shortly pubescent; profrons and cheeks respectively narrower and less high than A_3-width, about three-fourths of the latter; parafacials at the narrowest part about half as wide as A_3; epistoma projecting forwards about as far as frons at lunule.

Mesonotum with some accessory setulae between the rows of *pre acr*, distance between the rows being somewhat longer than that to *dc*; *ph* duplicated; *pra* as long as or a little longer than anterior *ntpl*; *stpl* 2:2; mesopleura with 1 or 2 strong anterior *mpl*, and with 1 strong *pstg* and many (about 15) fine associated setulae.



Figs. 6–10. *Lasiomma curtigena* (Ringdahl), ♂ (Karisaka, Saitama-ken): 6, hypopygium, dorsal view, anal sclerite omitted; 7, *ditto*, lateral view; 8, aedeagus; 9, 5th sternite, ventral view; 10, *ditto*, lateral view.

Abdomen depressed, nearly parallel-sided, and about twice as long as wide; 5th sternite (Figs. 9 & 10) with some strong and flattened setae.

Fore tibia with 1 distinct *ad* at apical third and no *pv*; f_2 with a complete row of slender *av*, the longest one being a little longer than height of the femur, and with no distinct *pv* except for a basal one, which is about as long as height of the femur; t_2 with 1 *ad* and 4–5 *pd*, and in 2 specimens out of the examined 3 with 1 or 2 distinct or strong *p* near apical third and some short and weak *p* on basal two-thirds, yet in the other specimen with no discernible *p*; f_3 with a complete row of *av* becoming longer and stronger towards apex of the femur, the longest one being about twice as long as height of the femur, and with a row of short and fine *pv*; t_3 with 5–7 *av*, 5–7 *ad*, 3 *pd* (and 2 additional ones in 1 specimen), and no *pv*, and without apical *pv*. Wings with costal thorns minute; costa haired ventrally; *m-m* slightly oblique and hardly sinuate.

♀. Unknown.

Distribution. Finnland; Japan.

According to Hennig's (1972) redescription based on the holotype, *L. curtigena* has only 1 *ph* except for *prst* on the mesonotum and no *ad* on the fore tibia. On the

other hand, the examined Japanese specimens all have 2 strong *ph* apart from *prst* and have a distinct *ad* on the fore tibia. This may suggest some differences between the European and Japanese forms, but it seems to me possible that the holotype of *curtigena* is rather aberrant in the features mentioned.

5. *Delia planipalpis* (Stein)

Chortophila planipalpis Stein, 1898: 234. *Chortophila pilipyga* Villeneuve, 1917: 440. *Delia pilipyga*: Suwa, 1974: 147. *Delia planipalpis*: Hennig, 1974: 878.

Recently *pilipyga* Villeneuve was suppressed as a synonym of *planipalpis* Stein by Hennig (1974) on a personal suggestion of Dr. Huckett to him. Having read my previous work (Suwa, 1974) Dr. Huckett kindly informed me that my *pilipyga* is conspecific with *planipalpis* from North America. All the published records suggest that this species is widely distributed in the northern Holarctic region.

6. *Delia brunnescens* (Zetterstedt)

Aricia brunnescens Zetterstedt, 1845: 1455. *Delia nuda*: Suwa, 1974: 148, nec Strobl, 1899. *Delia brunnescens*: Hennig, 1974: 759.

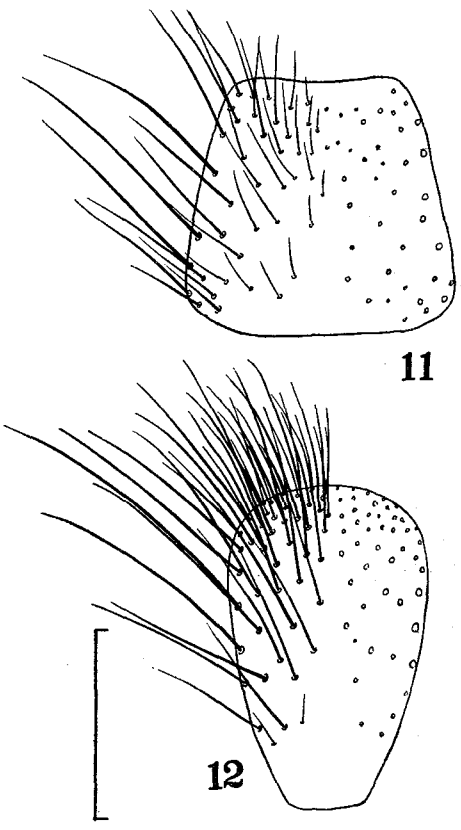
Having read redescriptions of *brunnescens* and *nuda* given by Hennig (1974) I have been convinced that the Japanese form which was identified with *nuda* by myself (Suwa, 1974) should be referred to *brunnescens* in having the 3rd sternite (Fig. 12) of the male narrower than the 4th one (Fig. 11).

Distribution. Europe; North America (problematic according to Hennig, 1974); Japan.

7. *Delia interflua* (Pandellé)

Anthomyia (*Chortophila*) *interflua* Pandellé, 1900: 262. *Delia karasawana* Suwa, 1974: 150, syn. nov. *Delia interflua*: Hennig, 1974: 837.

A redescription of *interflua* was recently given by Hennig (1974). My new species *karasawana* well agrees with his redescription, differing only in the male chaetotaxy as follows: – Mesonotum with only 1 *ph* in *interflua*, yet 2 in *karasawana*; t_3 with 6–18 *pv* in *interflua*, 20–25 in *karasawana*.



Figs. 11–12. *Delia brunnescens* (Zetterstedt), ♂ (Mt. Poroshiri, Hokkaidô): 11, 4th sternite; 12, 3rd sternite.

According to Hennig (l.c.) *D. interflua* is considerably variable in the number of the setae on the legs. It may be reasonable to conclude that the two forms are conspecific.

Distribution. Europe; Japan.

8. *Delia bipartita* sp. nov.

Delia criniventris: Suwa, 1974: 152, nec Zetterstedt, 1860.

Type-material. Hokkaidô – Rishiri-tô, 1 ♂ (holotype), 3-viii-58 (S. Takagi); Sarobetsu, 1 ♂, 18-viii-69 (T. Nakashima). The types are deposited in the collection of Entomological Institute, Hokkaidô University.

In the course of the present work I have found an additional specimen of the form which was tentatively determined as *criniventris* Zetterstedt by Suwa (1974). Having read a redescription of *criniventris* given by Hennig (1974) and having carefully examined the specimens at hand I have come to the conclusion that the Japanese form should be treated not as a mere aberrant form of *criniventris* but as a good species.

♂. Body-length 6–7 mm. Interfrontalia brownish on lower half and blackish on the upper in ground colour; haustellum with mentum pollinose. Mesonotum with a brownish yellow tinge in pollinosity; median and lateral vittae brownish pollinose. Abdomen pale grey and a little yellowish in pollinosity; median vitta wider on 3rd and 4th tergites than on the others, and broadly interrupted at hind margin of each tergite. Legs blackish or dark brownish, paler on tibiae. Wings and calyptrae tinged with yellow.

Head about 1.3 times as high as long; frons somewhat wider than anterior ocellus; interfrontalia about half as wide as anterior ocellus, with a pair of strong *if*, and with 1 (in the holotype) or 2 short setulae above the *if*; parafrontals with 6 *ori* and no *ors*; A_3 about twice as long as wide; arista with the longest hairs about twice as long as basal diameter of arista; profrons about as wide as A_3; cheeks about 1.2–1.4 times as high as A_3-width; epistoma slightly behind frons at lunule.

Mesonotum with 3 pairs of *pre acr*, setae of the middle pair being the strongest and separated from each other by a distance about two-thirds of that to *dc*; no distinct 2nd *ph*; *pra* more or less shorter than posterior *ntpl*; *stpl* 1:2.

Abdomen depressed, about 2.3 times (in the holotype) as long as wide, nearly parallel-sided on 2nd and 3rd tergites, and behind there distinctly narrowing caudad; 3rd and 4th tergites nearly equal to each other in length, and about two-thirds as long as the 5th one; 3rd tergite with some (6 in the holotype) conspicuously long hind marginal setae on each lateral side (which is folded ventrally), the setae extending beyond end of abdominal terminalia; prebasal sclerite with a row of many setae similar to ground setulae; 3rd to 5th sternites and hypopygium as shown in Figs. 415–419 on page 153 of Suwa (1974).

Fore tibia with 1 *ad* and 2 *pv*, and with only 1 strong apical seta (*d*); f_2 on basal half with 6–7 *pv*, the longest one being a little less than 1.5 times as long as height of the femur; t_2 with 1 *ad*, 1 (2 in the holotype on the right leg) *pd*, and 2 (3 in the holotype on the left leg) *pv*; f_3 on apical two-thirds with a row of about 7 *av*, which are becoming longer towards apex of the femur, and with no distinct *pv* except for a few preapical ones; t_3 with 2 *av*, 4 *ad*, 3 *pd* and 1–3 *pv*; t_2 with 2nd

segment swollen at base ventrally. Wings with costal thorns short; *m-m* only a little oblique and faintly sinuate.

♀. Unknown.

In having a swollen second segment on t_2, shortened 3rd and 4th tergites, and conspicuously long setae on 3rd tergite this species is indeed closely related to *criniventris* and its allies, from which it can, however, be readily distinguished by the 3rd sternite which is divided into 2 plates and armed with no long and strong setae, by the 3rd and 4th tergites nearly equal to each other in length, and by the setose prebasal sclerite.

9. *Delia flabellifera* (Pandellé)

Anthomyia (*Hydrophoria*) *flabellifera* Pandellé, 1900: 234. *Hylemyia tristriata* Stein, 1900: 310. *Delia tristriata*: Suwa, 1974: 157. *Delia flabellifera*: Hennig, 1974: 804.

The synonymy between *flabellifera* and *tristriata* was recently made clear by Hennig (1974), who examined the type-specimens of the two. The name *flabellifera* was applied to this species as valid because the publication was earlier than that of *tristriata* by about half a year.

10. *Delia fabricii* (Holmgren)

Aricia fabricii Holmgren, 1872: 101. *Delia fabricii*: Hennig, 1974: 802.

Material examined. Honshû – Mt. Kiso-Komagatake, Nagano-ken, 1♂, 29-viii-72 (T. Hattori).

D. fabricii may be a boreal or alpine species known from the northern part of the Holarctic region. On the basis of a single male specimen at hand I will give Japan as a new locality of this species.

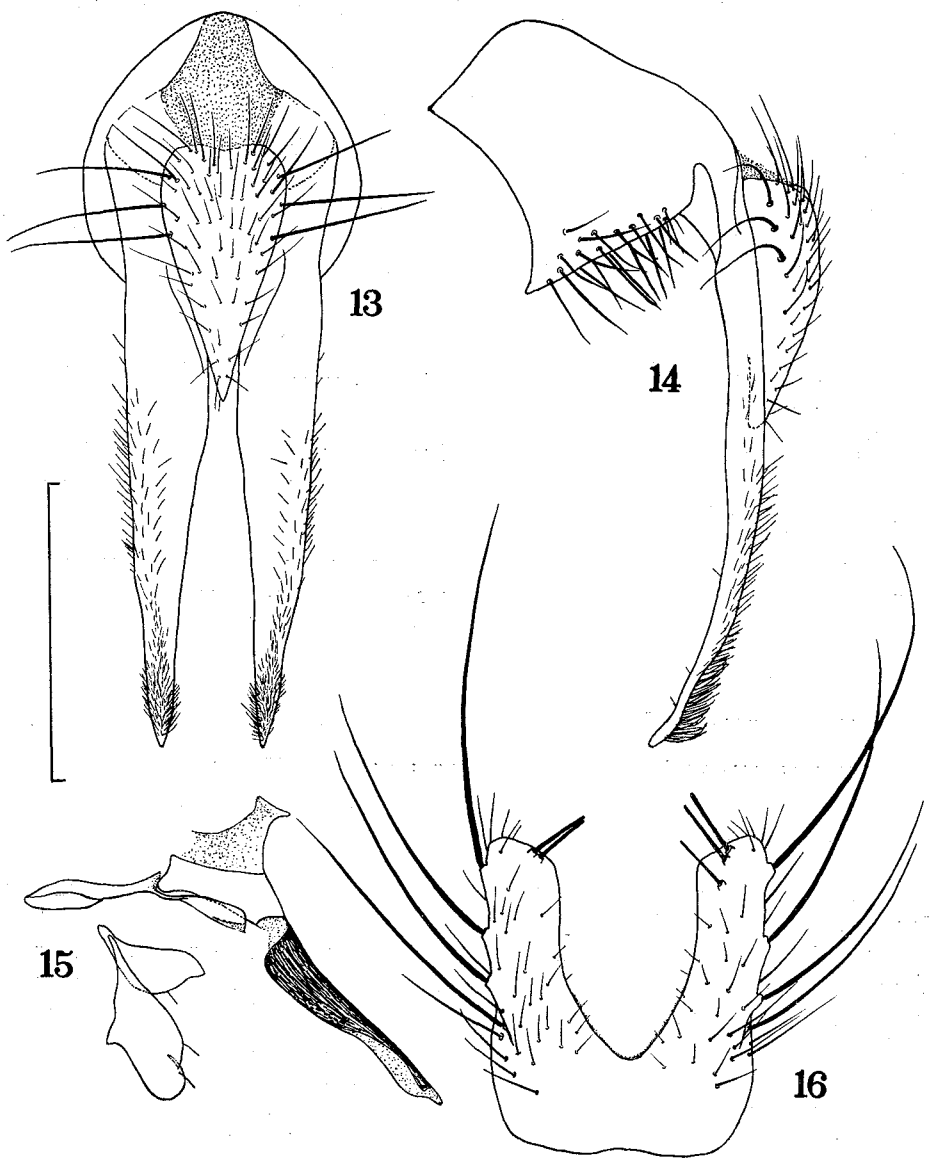
In a key to the Japanese species of *Delia* given by Suwa (1974) this species runs out near *conversata* (Tiensuu) in having in the male a blunt apical *pv* on t_1, no *ad* on t_2, a weak *pra*, and the epistoma not projecting forwards beyond frons at lunule. Moreover it resembles *conversata* in having lengthened setulae on the mid metatarsus of the male dorsally. *D. fabricii* is, however, readily distinguishable from that species by the arista with hairs not longer than basal diameter of arista, by f_3 with no strong *av* on basal half, and by the structure of the male 5th sternite and hypopygium (Figs. 13–16).

Distribution. Holarctic region.

11. *Delia tenuiformis* nom. nov.

Delia tenuis Suwa, 1974: 163, nec Drew, 1963.

Dr. Huckett kindly informed me that *Delia tenuis* Suwa, 1974 is a junior homonym of *Delia tenuis* (Drew, 1963), a name applied to a North American species. Here a new name is given to the Japanese species.



Figs. 13–16. *Delia fabricii* (Holmgren), ♂ (Mt. Kiso-komagatake, Nagano-ken): 13, hypopygium, dorsal view; 14, *ditto*, lateral view; 15, aedeagus; 16, 5th sternite.

12. *Hydrophoria frontata* (Zetterstedt)

Anthomyza frontata Zetterstedt, 1838: 669. *Hydrophoria frontata*: Huckett, 1944: 274; Hennig, 1969: 277; Suwa, 1974: 174.

Material examined. Hokkaidô – Mt. Daisetsu, 1♂, 1♀, 16–23-vii-75. Honshû – Mt. Akaishi, Shizuoka-ken, 1♀, 25-viii-72 (T. Hattori).

On the basis of a single female specimen from Mt. Akaishi, Honshû the

present Japanese form was tentatively referred to *H. frontata* by Suwa (1974), but its distinction from *septimalis* Pandellé and *spiniclunis* Pandellé was not clear at that time. Recently I examined 2 additional specimens (1♂ & 1♀, Mt. Daisetsu, Hokkaidô) of this form. The male specimen quite differs from redescriptions of *septimalis* and *spiniclunis* given by Hennig (1969) and agrees well with a redescription of *frontata* also given by him except for a slight difference in the chaetotaxy of the legs: – Mid tibia with only 1 *av*, 1 *ad*, 2 or 4 *p* and 1 *pv*; t_3 with 8 or 9 *av*, 7 or 8 *ad*, 4 strong and some fine *pd*, and no *pv*. The present form may rightly be identified with *frontata*.

13. *Pegomya seitenstettensis* (Strobl)

Anthomyia seitenstettensis Strobl, 1880: 25. *Pegomya seitenstettensis*: Hennig, 1973: 631. *Pegomya angustiorbitae* Suwa, 1974: 198, syn. nov.

Having carefully read a redescription of *seitenstettensis* by Hennig (1973) I have failed to find any remarkable differences between *seitenstettensis* and my *angustiorbitae*. Accordingly, the two should be identical with each other.

Host plants. *Oxalis acetosella* L., the fly is known as a a leaf-miner of the plant in Europe (after Hennig, 1973). There is no host-record in Japan.

Distribution. Europe; Japan.

14. *Pegomya maculata* Stein

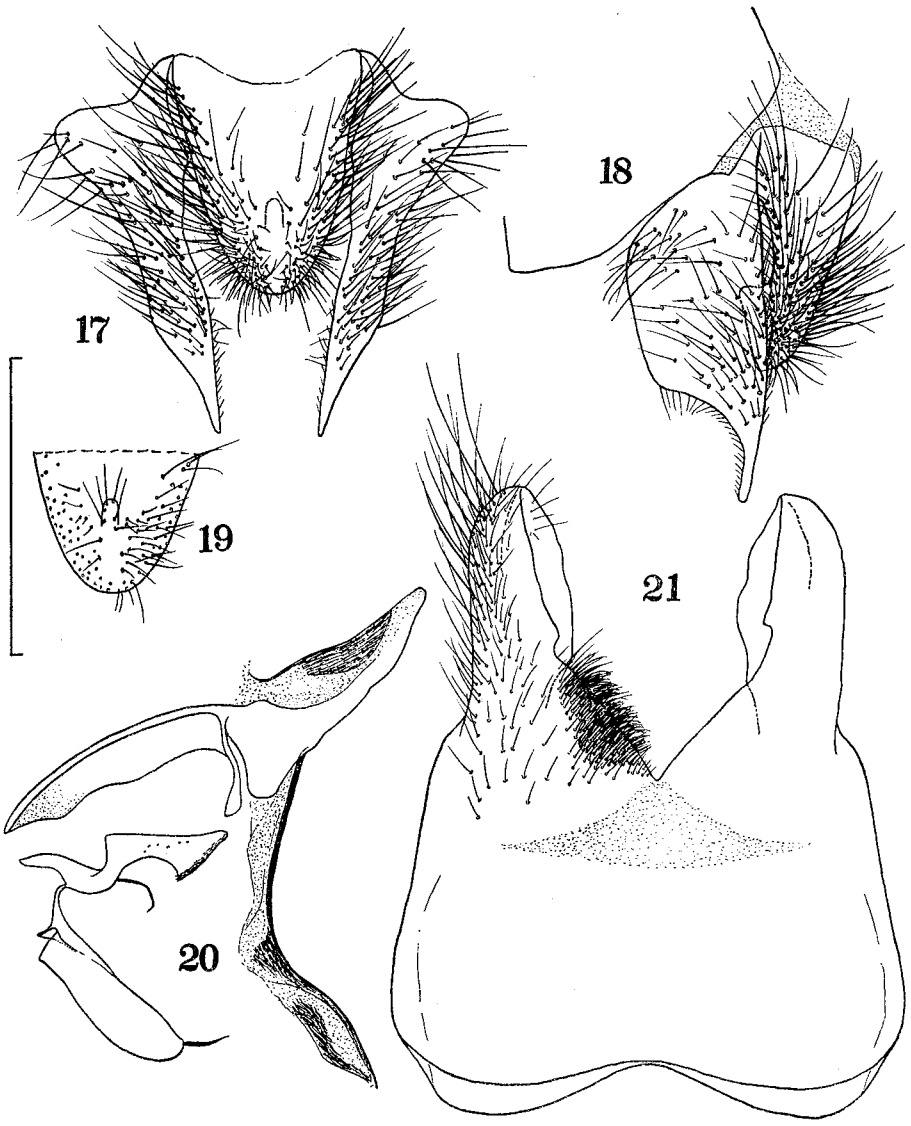
Pegomyia maculata Stein, 1906: 88. *Pegomya maculata*: Hennig, 1973: 596.

Material examined. Hokkaidô – Mt. Kamihorokamettoku-yama, 1♂, 9–10-viii-75.

This species is new to Japan. On the basis of the present male specimen the Japanese form will be described as follows: —

♂. Body-length *ca.* 6.5 mm. Interfrontalia brownish near lunule in ground colour, with pale grey pollen; orbits blackish in ground colour; parafrontals brownish grey in pollinosity; parafacials and cheeks pale brownish grey in pollinosity; antennae and arista dark brownish; palpi blackish; haustellum with mentum dark brownish and polished; occiput blackish in ground colour, and more or less brownish in pollinosity. Thorax blackish in ground colour, and brownish grey in pollinosity; mesonotum brownish pollinose and hardly vittate, when viewed from front wholly blackish, and when viewed from behind darkened only laterally. Abdomen blackish in ground colour, and brownish grey in pollinosity, with median vitta narrow; hypopygium thinly pollinose; 5th sternite with processes polished. Fore femur dark brownish; f_2 and f_3 yellow, with a blackish apical fourth; tibiae dark brownish; t_3 more or less yellowish; tarsi blackish. Wings and calyptrae strongly tinged with brownish yellow.

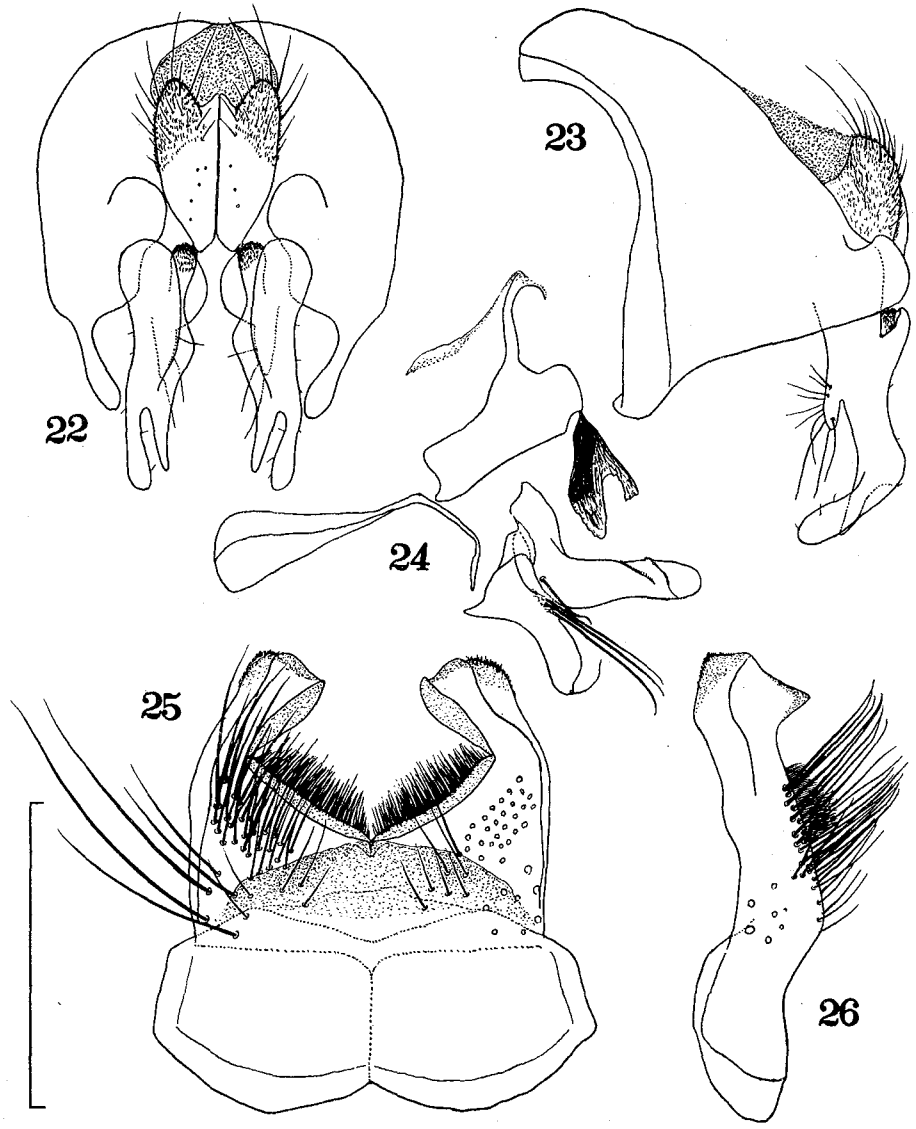
Head about 1.5 times as high as long; frons very narrow, less than half as wide as anterior ocellus; parafrontals broadly contiguous to each other, and with about 5 *ori*; A_3, in compressed condition, about 2.2 times as long as wide; arista shortly pubescent; profrons and cheeks about two-thirds of A_3-width respectively in width and height; epistoma distinctly behind frons at lunule.



Figs. 17–21. *Hydrophoria frontata* (Zetterstedt), ♂ (Mt. Daisetsu, Hokkaidô): 17, hypopygium, dorsal view, anal sclerite omitted; 18, *ditto*, lateral view; 19, cercal plate, caudal half, inside view; 20, aedeagus; 21, 5th sternite.

Mesonotum with 3 pairs of rather strong *pre acr*, and setulose between the rows of *pre acr*, which are separated from each other by a distance distinctly longer than that to *dc*; *ph* duplicated; *pra* much weaker than posterior *ntpl*, and about two-thirds of the latter in length; *stpl* 1:2.

Abdomen depressed except on hypopygium, about twice as long as wide, and nearly parallel-sided; 5th sternite (Figs. 25 & 26) with a fringe of fine setulae along inner margin on basal half of processes; hypopygium as in Figs. 22–24.



Figs. 22–26. *Pegomya maculata* Stein, ♂ (Mt. Kamihorokamettoku-yama): 22, hypopygium, dorsal view; 23, *ditto*, lateral view; 24, aedeagus; 25, 5th sternite, ventral view; 26, *ditto*, lateral view.

Fore tibia with 1 minute *ad* near apical third and 1 distinct *pv* near middle; f_2 with no distinct *av*, and on basal half with some (4–5) *pv*, the longest one being as long as or a little longer than height of the femur; t_2 with 1 *ad*, 1 *pd* and 2 *p–pv*; f_3 with a row of *av* becoming longer and stronger towards apex of the femur, the longest one about twice as long as height of the femur, on basal half with a row of slender *p–pv*, and on middle third with some slender *pv*; t_3 with 1 *av*, 3 *ad* and 2

pd. Wings with costal thorns minute; *m-m* oblique and strongly sinuate; lower calyptra protruded beyond the upper.

Host plants. A mushroom, *Lactaria deliciosa*, has been known as a host of this fly in Europe (after Engel, 1916 through Hennig, 1973).

Distribution. Europe; Japan.

According to Hennig (1973) this species can be distinguished from *P. atricauda* Ringdahl, which is closely related to *maculata* and has been known only from Sweden, by the lower calyptra protruded beyond the upper. Judging from a redescription of *maculata* given by Hennig (1973) the Japanese form may be a little different from the European one in having a darker colouration of the pollinosity and the legs.

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Errata

M. Suwa: Anthomyiidae of Japan
Insecta Matsumurana New Series 4, 1974

P. 45, line 14. After "Jozankei," add "1♂,".
P. 71, in Table 1. For "Mt. Mitaka" read "Mt. Mitake".
P. 78, line 5 from bottom. Replace ";" with ",".
P. 78, line 4 from bottom. For "1♀" of the top read "1♂".

P. 84, line 18. For "*Chrotophila*" read "*Chortophila*".
P. 126, line 20 from bottom. For "18♂♂" read "17♂♂".
P. 129, line 15. For "11♂♂" read "10♂♂".
P. 160, line 9. For "1♂" read "1♀".
P. 223, line 14. For "6-v-68" read "8-v-68".