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Notes on some Japanese Siphonini (Diptera: Tachinidae)¹

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The tribe Siphonini (=Actiini) is a very characteristic group of the family Tachinidae. In this paper I report 2 species of *Sirobliomyia*, 3 species of *Actia* and 2 species of *Ceromyia* from Japan. Each species of these genera is described as new to science and one female of the genus *Actia* is described for the first time. Three species of these genera are newly recorded and 2 host records of *Sirobliomyia* and *Actia* are reported for the first time from Japan. A preliminary key to the Japanese *Ceromyia* is presented.

I wish to express my hearty thanks to Professors K. Yasumatsu and T. Torii, Kyushu University, for their kind guidance in the course of this study. I am also much indebted to the following entomologists, who kindly offered me the materials: Dr. C. M. Yoshimoto, Prof. A. Nagatomi, Prof. T. Saigusa, Messrs. Y. Miyatake, K. Nozato, A. Nakamishi, Miss M. Honda, Mr. K. Kanmiya and Mr. A. Mori.

All the type specimens will be kept in the collection of Entomological Laboratory, Kyushu University, Fukuoka, Japan.

1. *Sirobliomyia insularis* sp. nov.

This species is very closely related to the European species *S. fissicornis*, but is easily differentiated by the narrower vertex, shorter 2nd arisal segment, shorter thickened part of 3rd arisal segment, yellowish tibia, etc.

♂. *Head*: Almost reddish yellow in ground color, upper occiput darkened; interfrontal area reddish yellow; parafrontal with dense gray-yellow pollinosity; parafacial densely gray-white pollinose; occiput

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with grayish pollinosity; antenna with 1st, 2nd and base of 3rd segments reddish yellow, 3rd segment mostly dark brown; arista yellowish on thickened part; palpus yellow. Vertex very slightly wider than eye-width when seen from above (11:10); interfrontal area nearly parallel-sided, nearly $2.5\times$ as wide as parafrontal; facial length distinctly longer than frontal one (7:5); parafacial slightly narrowed below; epistoma slightly projected forward, very slightly over vibrissal angle; gena nearly $1/4$ of eye-height; occiput slightly bulged. Inner vertical bristle nearly $3/5\times$ as long as eye-height, and nearly $1.5\times$ as long as outer one; 2 proclinate and divergent ocellar bristles subequal in length to anterior inner orbital bristle; 2 reclinate inner orbital bristles, anterior one stronger and nearly on level of middle of parafrontal; 2 very strong proclinate outer orbital bristles; 5 frontal bristles, of which the undermost one is nearly on level of anterior apex of 2nd antennal segment; anterior $1/2$ of parafrontal with a row of short black hairs, which are decending to upper $1/3$ of parafacial; occiput with a row of fine black setae on its upper $1/2$; 2 postocellar setae; 1 postvertical seta on each side. Antenna with 2nd segment very short, nearly $1/7\times$ as long as 3rd; 3rd segment cleft from near base to apex, upper lobe shorter than lower one, lower one upwardly bulged at apex. Arista slightly shorter than 3rd antennal segment (3:3.5), with very fine pubescence; 2nd segment nearly $1/3\times$ as long as 3rd; 3rd segment thickened at most on its basal $1/2$. Labella normal; palpus clavate, rather short. Eye bare.

Thorax: Mostly black in ground color, posterior $1/2$ of scutellum reddish; dorsum with dense gray-yellow pollinosity, without distinct vitta; pleura rather thinly grayish pollinose; pollinosity on scutellum very thin. Propleura bare; prosternum setulose; sternopleura bare in front of mid-coxa; barette with 1 very fine hairs on anterior part; 2+4 *ac*; 3+4 *dc*; lower prostigmatal bristle strong and downwardly directed; 3 *stpl*, undermost one slightly shorter than upper anterior one; subapical scutellar bristle nearly $2\times$ as long as scutellum, converging each other; apical scutellar bristle fine but distinct, nearly $2/3\times$ as long as scutellum, crossing each other. Distance between 2 subapical scutellar bristles slightly longer than that between basal and subapical ones of same side (10:7).

Wing: Hyaline; epaulette black; basicosta yellow; veins yellow-brown; calypter dull yellowish. Vein R_1 bare; vein R_{4+5} setulose dorsally from base to level of bending portion of vein M_1 , ventrally with only 1 seta on its base; vein Cu_1 bare. Second costal sector nearly $1/5\times$ as long as 3rd; ultimate section of vein Cu_1 (distance between crossvein $M-Cu$ and wing margin) nearly $1.5\times$ as long as penultimate section of vein M_1 (distance between crossveins $R-M$ and $M-Cu$), and

Fig. 1. *Strobilomyia insularis* sp. nov., ♂ genitalia A: epandrium, cercus and surstylus in lateral view, B: same in dorsal view (hairs on left side are not drawn), C: hypandrium and phallic organ in lateral view. a : epandrium (9th tergum), b : cercus, c : surstylus, d : surstylus apodeme, e : hypandrium (9th sternum), f : pregonite, g : postgonite, h : basiphallus, i : dorsal process of basiphallus (epiphallus), j : distiphallus, k : ejaculatory duct, l : ejaculatory apodeme, m : phallic apodeme, n : anus.

nearly $2/3\times$ as long as its own penultimate section (distance between base and crossvein *M-Cu*); crossvein *M-Cu* nearly $1/2\times$ as long as ultimate section of vein *Cu*₁; vein *An* reaching wing margin.

Leg: Coxa, trochanter and tibia reddish yellow; femur and tarsus brownish; pulvillus yellow. Fore tibia with 4 anterodorsal and posterodorsal setae and 1 posterior seta; mid-tibia with 1 anterodorsal, 2 posterodorsal and 1 ventral setae, posterodorsal setae rather fine; hind tibia with rows of anterodorsal and posterodorsal setae and 4 ventral setae. Fifth tarsomere of fore leg not much elongated; claw and

pulvillus very short.

Abdomen: Mostly shining brown-black; dorsum of anterior 1/3 of 3rd to 5th terga with rather dense gray-white pollinosity; pollinosity on 3rd and 4th terga extending to anterior 2/3 of each dorsum, but very thin and only visible when seen from behind; mid-dorsal longitudinal line rather broad and distinct on 3rd and 4th terga. Second tergum without distinct lateral and median marginal bristle; 3rd tergum with 1 lateral and 2 median marginal bristles; 4th and 5th terga with rows of marginal bristles; discal bristle entirely absent.

♂ *genitalia*: Cercus gradually tapering to apex, very slightly bent ventrally, slightly shorter than surstylus; surstylus very slightly constricted at middle in profile, with very sparse hairs; basiphallus with a rather long dorsal process; distiphallus with strong spines; ejaculatory apodeme very large and fan-shape.

♀. Unknown.

Body length: 3.8-4.2 mm.

Holotype ♂, Asahigaoka, Tokunoshima, Amami-Islands, Ryukyus, 7. xi. 1966, Y. Miyatake.

Paratype: 1♂, Ooyama, Okinoerabu, Amami-Islands, 28-30. vii. 1963, C. M. Yoshimoto (this specimen is from the collection of Japan-U.S. Cooperative Science Program).

Host: Unknown.

Distribution: Japan (Ryukyus).

2. *Strobliomyia orbata* (Wiedemann, 1830)

This is a very widely distributed species and appears to be one of the commonest *Strobliomyia* in the Orient. Among the Japanese specimens, I could examine those only from Kyushu and the Ryukyus. This is the first record of this species from Japan. One of them was reared from *Aedia leucomelas* Linné in Kagoshima Pref., Kyushu. This is a new host record of this species.

Specimens examined: 1♀, reared from *Aedia leucomelas*, Nagasakibana, Kagoshima Pref., x. 1969, A. Mori; 1♀, Nagata, Yakushima, Kagoshima Pref., 30. vii. 1968, A. Nagatomi; 1♂1♀, Kusakawa, Yakushima, 3. x. 1968, M. Honda & K. Kanmiya; 1♀, Kurio, Yakushima, 6. x. 1968, M. Honda; 1♀, Uragami, Amami-Oshima, Ryukyus, 31. x. 1966, Y. Miyatake.

Host: *Aedia leucomelas* Linné (Nakajiro-shitaba).

Distribution: Japan (Kyushu & Ryukyus), Europe, Africa, South East Asia, Mariana, Guam, New Guinea, Solomon, New Herbrides, New Caledonia and Australia.

3. *Actia jocularis* Mesnil, 1957

This species was described on only a single male specimen obtained in Honshu. I have been able to examine a male and a female specimens collected in Hokkaido. Description of male genitalia and some female characters are given below.

♂ *genitalia*: Fifth sternum with dense hairs; cercus slightly bent ventrally at apex, shorter than surstylus; surstylus with very sparse hairs; basiphallus without dorsal process; distiphallus with rather strong spines ventrally; pregonite with some strong spines apically; ejaculatory apodeme small and rather narrow.

♀. Very closely resembling male but being different as follows: Vertex slightly wider than in male, proportion of eye-width and vertex as 10 : 15; interfrontal area nearly parallel-sided, slightly wider than parafrontal (5 : 4); fulcrum shorter, slightly longer than eye-height; labella nearly $1/2\times$ as long as fulcrum; lower surface of wing vein R_1 with a few setae on its apical $1/3$; ultimate section of wing vein Cu_1

Fig. 2. *Actia jocularis* Mesnil, ♂ genitalia A: epandrium, cercus and surstylus in lateral view, B: same in dorsal view (hairs on left side are not drawn), C: hypandrium and phallic organ in lateral view.

slightly longer than crossvein *M-Cu* (13:11); 2nd abdominal tergum with 1 weak lateral marginal bristle.

Specimens examined: 1♂, Mt. Rausu (200-900 m), Hokkaido, 3. viii. 1967, H. Shima; 1♀, Yubaridake, Sorachi, Hokkaido, 15. vii. 1967, T. Saigusa.

Host: Unknown.

Distribution: Japan (Hokkaido & Honshu).

4. *Actia nigra* sp. nov.

This species is closely related to *A. jocularis* and *A. maksymovi*. But it is easily distinguished by the normal labella, 3+3 *dc*, bare prosternum, presence of lateral discal bristles on 3rd to 5th abdominal terga, yellow palpus, etc.

♂. *Head*: Almost reddish brown in ground color; parafrontal and occiput darkened, with grayish pollinosity; parafacial, face and gena thinly whitish pollinose; interfrontal area reddish; antenna with 1st, 2nd and base and posterior side of 3rd segments reddish, 3rd segment mostly dark brown; arista brown; palpus reddish yellow. Vertex nearly 1.5× as wide as eye-width when seen from above; interfrontal area nearly parallel-sided, slightly wider than parafrontal (4:3); frontal length nearly 3/4× as long as facial one; parafacial narrowed below, slightly narrower than length of 2nd arisal segment at middle; epistoma slightly produced forward, slightly over vibrissal angle; gena nearly 3/10 of eye-height; occiput convex. Inner vertical bristle very strong, slightly shorter than eye-height and nearly 2× as long as outer one; ocellar bristle strong, nearly as long as anterior outer orbital one; 2 reclinate inner orbital bristles, anterior one nearly on level of posterior 1/3 of parafrontal; 2 proclinate outer orbital bristles, anterior one stronger; 4-5 frontal bristles, undermost one on level of middle of 2nd antennal segment; parafrontal hairs very sparse on posterior 1/2, 1-2 hairs descending below undermost frontal bristle; 1-2 very fine hairs sometimes present on upper 1/2 of parafacial; 2 post-ocellar setae; 1 postvertical seta on each side; occiput entirely with black setae. Antenna with 2nd segment nearly 1/5× as long as 3rd; 3rd segment rounded at apex, nearly 1/2× as wide as long. Arista nearly as long as 3rd antennal segment, with very short and fine pubescence; 2nd segment nearly 1/4× as long as 3rd; 3rd segment at most thickened on its basal 3/5. Labella of normal length; palpus slightly clavate. Eye bare.

Thorax: Black in ground color, apical 1/3 of scutellum reddish yellow; dorsum rather densely grayish pollinose, longitudinal vitta indistinct;

Fig. 3. Male 5th sternum in ventral view (hairs on left side are not drawn), A: *Strobliomyia insularis* sp. nov., B: *Actia jocularis* Mesnil, C: *Actia nigra* sp. nov., D: *Ceromyia dorsigera* Herting, E: *Ceromyia silacea* (Meigen), F: *Ceromyia pruinosa* sp. nov.

pleura with thin grayish pollinosity; pollinosity on scutellum thin. Propleura and prosternum bare; sternopleura with a row of fine hairs in front of mid-coxa; barettæ bare; lateral postscutellar plate (just below base and inner margin of lower calypter) bare; 3 humerals in a line; 3+4 *ac*, foremost presutural and 2 anterior postsutural bristles very fine; 3+3 *dc*; lower prostigmatal bristle very fine and hair-like; 1+3 *ia*; 3 *stpl*, undermost one fine, nearly $2/3\times$ as long as upper anterior one; 2 lateral scutellar bristles present on each side; subapical scutellar bristle $2\times$ as long as scutellum, converging each other; apical scutellar bristle very fine; preapical scutellar bristle indistinct. Distance between 2 subapical scutellar bristles nearly $2/3\times$ as long as that between basal and subapical ones of same side.

Wing: Hyaline, somewhat tinged with yellow basally; epaulette black; basicosta brown; vein yellowish brown; calypter somewhat golden yellowish. Vein R_1 setulose dorsally on its apical $1/2$, bare ventrally, sometimes 2-4 fine setae present on its apical $1/2$ ventrally; dorsal surface of vein R_{4+5} setulose over level of crossvein $M-Cu$, ventral surface with 1-2 setae on its base, sometimes 1-2 additional setae present between base and crossvein $R-M$; vein Cu_1 setulose slightly over crossvein $M-Cu$. Second costal sector nearly $1/4\times$ as long as 3rd; crossvein $M-Cu$ subequal in length to ultimate section of vein Cu_1 ; ultimate section of vein Cu_1 nearly $1/2\times$ as long as penultimate section of vein M_1 , and nearly $2/7\times$ as long as its own penultimate section; vein An not reaching wing margin.

Leg: Almost brown-black, trochanter and fore coxa reddish; pulvillus yellow. Fore tibia with a row of anterodorsal, 4-5 posterodorsal and 1 posterior setae; mid-tibia with 1 anterodorsal, 2 posterodorsal and 1 ventral setae; apical internal bristle on hind tibia shorter than apical external one. Fifth tarsomere not much elongated. Claw and pulvillus very short.

Abdomen: Shining black in ground color; dorsum of anterior 1/6 of 3rd to 5th terga with rather thin whitish pollinosity, which is broadly interrupted at middle of each tergum. Hairs recumbent; 2nd tergum with 1 lateral marginal bristle; 3rd tergum with 1-2 lateral discal, 1-2 lateral marginal and 2 median marginal bristles; 4th and 5th terga with 2-3 lateral discal and rows of marginal bristles; 4th tergum rarely with 1-2 weak median discal bristles.

♂ genitalia: Very closely allied to *A. jocularis*: 5th sternum with dense hairs on its produced part; cercus bulged at each side basally,

Fig. 4. *Actia nigra* sp. nov., ♂ genitalia A: epandrium, cercus and surstylus in lateral view, B: same in dorsal view (hairs on left side are not drawn), C: hypandrium and phallic organ in lateral view.

distinctly shorter than surstylus ; surstylus with sparse hairs on its base exteriorly ; pregonite with some strong spines on its apical part ; basiphallus without dorsal process ; ejaculatory apodeme rather long and narrow, fan-shape.

♀. Very closely resembling ♂, but differing as follows : Second antennal segment nearly $1/4\times$ as long as 3rd, 3rd segment slightly narrower than in male ; scutellum more reddish ; coxa and trochanter mostly reddish.

Body length: 4.9-5.1 mm.

Holotype ♂, Pirikapetanu, Mt. Satsunai, Mts. Hidaka, Hokkaido, 27. vii. 1967, T. Saigusa.

Paratypes: 3 ♂ 1 ♀, same data as holotype, T. Saigusa, A. Nakanishi & H. Shima; 1 ♀, Akanmachi, Kushiro, Hokkaido, 31. vii. 1967, A. Nakanishi.

Host: Unknown.

Distribution: Japan (Hokkaido).

5. *Actia nudibasis* Stein, 1924

In Europe this species has been known as a parasite of *Dioryctria splendidella* Herrich-Shäffer. But, as far as I know, this species has not been recorded from Japan. I examined a tachinid-species reared from *D. splendidella* in Fukuoka Pref., and consider it as belonging to this species.

Specimens examined: 1 ♂, reared from *Dioryctria splendidella*, Mitoma, Fukuoka Pref., Kyushu, 30. iii. 1964, K. Nozato; 1 ♂ 2 ♀, reared from same host species as preceding, Mitoma, 7. vi. 1965, K. Nozato.

Host: *Dioryctria splendidella* Herrich-Shäffer (Matsuno-oomadara-meiga).

Distribution: Japan (Kyushu) & Europe.

6. *Ceromyia dorsigera* Herting, 1967

This species was described from Europe, and I could examine the same species obtained in Hokkaido. This species is very closely related to *C. silacea*, but is easily differentiated by the dark brown mesonotum, position of anterior inner orbital bristle and almost reddish yellow abdomen.

♂ *genitalia*: Cercus very strongly curved, with very strong hairs basally ; surstylus fused with epandrium at base, nearly straight, with dense hairs exteriorly and interiorly ; basiphallus without dorsal process ; distiphallus large ; ejaculatory apodeme rather small and fan-shape.

Specimens examined: 4♂♂ 1♀, Kiyokawa, Ashoro, Hokkaido, 23. vii. 1967, T. Saigusa & A. Nakanishi; 1♀, Berabonai, Ashoro, 24. vii. 1967, H. Shima.

Host: Unknown.

Distribution: Japan (Hokkaido) & Europe.

Fig. 5. Male genitalia, A, C, E: *Ceromyia silacea* (Meigen), B, D, F: *Ceromyia dorsigera* Herting, A, B: epandrium, cercus and surstylus in lateral view, C, D: same in dorsal view (hairs on left side are not drawn), E, F: hypandrium and phallic organ in lateral view.

7. *Ceromyia pruinosa* sp. nov.

This species is very characteristic in its parafrontal hairs descending to upper 1/2 of parafacial, wing vein *R*₁ with only 2-3 setae on its apical 1/3 dorsally, 3+4 *dc*, leg entirely yellow, abdominal dorsum almost evenly pollinose, scutellum almost yellowish in ground color, etc.

♂. *Head*: Pale yellowish in ground color, upper occiput slightly darkened; interfrontal area yellow; parafrontal yellowish pollinose; parafacial, face and gena with whitish pollinosity; occiput grayish pollinose; antenna reddish yellow, 3rd segment darkened anteriorly and apically; arista yellow on its basal 1/2; palpus yellow; fulcrum and labella yellow. Frontal length shorter than facial one (3:3.5); vertex nearly 1.5× as wide as eye-width when seen from above; interfrontal area parallel-sided, nearly 2× as wide as parafrontal; parafacial narrowed below, subequal in width to length of 2nd arisal segment; gena nearly 1/4 of eye-height; epistoma slightly produced forward, slightly over vibrissal angle; occiput well bulged. Inner vertical bristle very strong, subequal in length to eye-height, and nearly 2× as long as outer one; ocellar bristle strong, proclinate and divergent, subequal in length to anterior outer orbital bristle; 2 reclinate inner orbital bristles, anterior one somewhat interclinate and very strong, subequal in length to outer vertical one, and sitting on level of posterior 1/3 of parafrontal; 2 proclinate outer orbital bristles, anterior one stronger but distinctly shorter than anterior inner one; 4-5 frontal bristles, undermost one nearly on level of base of 2nd antennal segment; parafrontal hairs very sparse on upper 1/2, a row of fine black hairs descending to upper 1/2 of parafacial; occiput with yellow setae, a few black seta present on upper part; 2 postocellar setae; 1 postvertical seta on each side. Antenna with 2nd segment 1/4× as long as 3rd; 3rd segment rounded at apex, 2× as long as wide. Arista slightly longer than 3rd antennal segment, with very fine pubescence; 2nd segment 2× as long as wide; 3rd segment thickened on its basal 1/2. Fulcrum of normal length; labella large; palpus slightly clavate, nearly 2× as long as 2nd antennal segment. Eye bare.

Thorax: Black in ground color, humeral callus and scutellum reddish yellow; pleura brownish; dorsum with dense gray-yellow pollinosity; pleura thinly gray-white pollinose; scutellum with very thin whitish pollinosity. Propleura bare; prosternum with 1-2 very fine hairs on its sides; sternopleura bare in front of mid-coxa; barettie bare; 3+4 *ac*; 3+4 *dc*; 1+3 *ta*; lower prostigmatal bristle very fine; 3 *spl*, undermost one nearly 1/2 as long as upper anterior one; subapical scutellar bristle 2× (or more) as long as scutellum, crossing each other apically; apical scutellar bristle crossing, very fine and hair-like, distinctly shorter than preapical one. Distance between 2 subapical scutellar bristles subequal in length to that between basal and subapical ones of same side.

Wing: Hyaline, very slightly tinged with yellow; epaulette black; basicosta yellow; vein yellow-brown; calypter yellow-white. Vein R_1 with 2-4 setae on its apical 1/3 dorsally, bare ventrally; vein R_{4+5} setu-

lose dorsally from base to level of anterior apex of vein R_{2+3} , ventrally with only 1 seta on its base; vein Cu_1 bare. Second costal sector nearly $1/5\times$ as long as 3rd; crossvein $M-Cu$ nearly $2/3$ (or less) $\times$ as long as ultimate section of vein Cu_1 ; ultimate section of vein Cu_1 slightly shorter than penultimate section of vein M_1 , and nearly $1/2$ as long as its own penultimate section; vein An not reaching wing margin.

Leg: Entirely yellow, including tarsus; pulvillus yellow. Fore tibia with a row of anterodorsal, 3-4 fine posterodorsal and 1 posterior setae; mid-tibia with 1 strong anterodorsal, 2 posterodorsal and 1 (and rarely 1 additional) ventral setae; hind tibia with rows of anterodorsal and posterodorsal setae and 3-4 ventral setae. Fifth tarsomere not much elongated. Claw and pulvillus very short.

Fig. 6. *Ceromyia pruinosa* sp. nov., ♂ genitalia A: epandrium, cercus and surstylus in lateral view, B: same in dorsal view (hairs on left side are not drawn), C: hypandrium and phallic organ in lateral view.

Abdomen : Brownish, somewhat shining; entire 1st+2nd, side and venter of 3rd and mid-ventral part of 4th and 5th terga (and sometimes anterior side of 4th tergum) reddish yellow or reddish brown; mid-dorsal part of 1st+2nd and 3rd terga black; dorsum with rather thin gray-white pollinosity evenly; pollinosity denser on anterior part of each tergum; mid-dorsal longitudinal line distinct on 3rd to 5th terga; venter with rather thin gray-white pollinosity on anterior narrow part. Second tergum without distinct lateral and median marginal bristle; 3rd tergum with 1 lateral and 2 median marginal bristles; 4th and 5th terga with rows of marginal bristles; discal bristle entirely absent.

♂ *genitalia*: Fifth sternum with very minute pubescence on its interior produced part; cercus strongly constricted at middle, narrow and tapering to apex; surstylus longer than cercus, with rather sparse hairs; basiphallus without any dorsal process; distiphallus with very fine spines ventrally; ejaculatory apodeme rather small.

♀. Very closely resembling male but differing as follows: Outer vertical bristle nearly $2/3 \times$ as long as inner one; 2nd antennal segment nearly $1/3 \times$ as long as 3rd; arista subequal in length to total length of 2nd and 3rd antennal segments; palpus subequal in length to 3rd antennal segment; abdomen more broadly reddish.

Body length: 3.9-5.1 mm.

Holotype ♂, Berabonai, Ashoro, Hokkaido, 22. vii. 1967, H. Shima.

Paratypes: 2♂♂ 1♀, same locality as holotype, 23. vii. 1967, T. Saigusa, A. Nakanishi & H. Shima.

Host: Unknown.

Distribution: Japan (Hokkaido).

Key to the species of known Japanese *Ceromyia*

1. Fifth wing vein (Cu_1) setulose dorsally from base to crossvein $M-Cu$; $3+3$ dc; first wing vein (R_1) setulose dorsally along its entire length, on its apical $1/3$ ventrally 2
- Cu_1 bare; $3+4$ dc 3
2. Mesonotum entirely reddish yellow in ground color, with very thin grayish pollinosity; anterior inner orbital bristle on level of anterior $1/3$ of parafrontal; interfrontal area $2 \times$ as wide as parafrontal; abdomen translucent yellow or reddish yellow, mid-dorsal line of 3rd to 5th terga and posterior apex of 5th (and sometimes 4th) tergum distinctly brown-black *silacea* (Meigen): Japan (Hokkaido & Honshu) & Europe.
- Mesonotum brown-black in ground color, with dense gray-yellow pollinosity; anterior inner orbital bristle nearly on level of middle of parafrontal; interfrontal area at most $1\frac{1}{2} \times$ as wide as parafrontal; abdomen translucent yellow, somewhat reddish on 4th and 5th terga, without distinct black apex on 4th

- and 5th terga..... *dorsigera* Herting: Japan (Hokkaido) & Europe.
3. First wing vein (R_1) setulose along its entire length dorsally, only on its apical 1/3 ventrally; parafrontal hairs only slightly descending below undermost frontal bristle; anterior inner orbital bristle on level of middle of parafrontal; mesonotum brown-black in ground color; abdomen almost reddish yellow in ground color, with very thin whitish pollinosity on anterior narrow margin of 3rd to 5th terga; mid-dorsal part of 3rd to 5th abdominal terga slightly darkened and posterior apex of 5th tergum brown-black
- *pendleburyi* (Malloch): Japan (Hokkaido & Honshu) & South East Asia.
- R_1 with only 2-3 setae on its apical 1/3 dorsally, bare ventrally; parafrontal hairs descending to upper 1/2 of parafacial; anterior inner orbital bristle nearly on level of posterior 1/3 of parafrontal; mesonotum black; abdomen brownish, with rather thin gray-white pollinosity evenly on dorsum; entire 1st+2nd and side and venter of 3rd abdominal terga reddish yellow
- *pruinosa* sp. nov.: Japan (Hokkaido).