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A Revision of the Japanese Species of *Homoneura* (*Homoneura*) (Diptera, Lauxaniidae) Part 3*

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Abstract Five new species, *Homoneura pyriformis*, *trifurcata*, *tridentata*, *aulatheca* and *securigera*, are described, and two species are recorded from Japan for the first time. A key to the species is given.

In this paper, diagnoses of two newly recorded species and descriptions of five new species belong to the *acrostichalis* group which is provided with minutely pubescent arista, as in *interstincta* group (SASAKAWA & IKEUCHI, 1983). The males of *acrostichalis* group can be separated from those of *interstincta* group by having the normal sixth abdominal sternite as in *euaesta* group (SASAKAWA & IKEUCHI, 1982). The types are deposited in the Laboratory of Entomology, Kyoto Prefectural University unless otherwise stated.

26. *Homoneura pyriformis* SASAKAWA et IKEUCHI, n. sp.

Diagnosis. This black species is somewhat intermediate between the Oriental *coffeata* (DE MEIJERE) and *exigua* (DE MEIJERE) in general appearance, but can be separated from them by its longer ocellar bristles.

Description. Body length 3.1-3.3 mm, wing length 2.9 mm. Entirely black, dusted with whitish-gray; thorax and abdomen weakly shining; wing hyaline, calyp-ter with fringe whitish, halter with stalk yellowish and knob black; legs with tarsi yellowish brown.

Frons a little wider than eye, parallel-sided; *oc* slightly longer than anterior *or*; gena 1/5-1/8 height of eye; antennae separated narrowly at bases, 3rd antennal segment about 1.7 times as long as wide, arista minutely pubescent. Mesonotum with 0+3 *dc*, *acr* in 6 rows, *prsc* shorter than 1st *dc*. Wing with costal sections in proportion of 34:10:6.5; r-m slightly beyond middle of discal cell; ultimate section of M_{1+2} almost twice as long as penultimate; ultimate section of M_{3+4} 1/4-1/5 length of penultimate. Mid tibia with 2 spurs.

Genitalia: Epandrium with surstylus rather broad, pointed distally; hypandrium pentagonal in outline, with a long knobstick posteriorly and a semicircular membraneous part near anterior base; gonapophysis with a pair of minutely ser-

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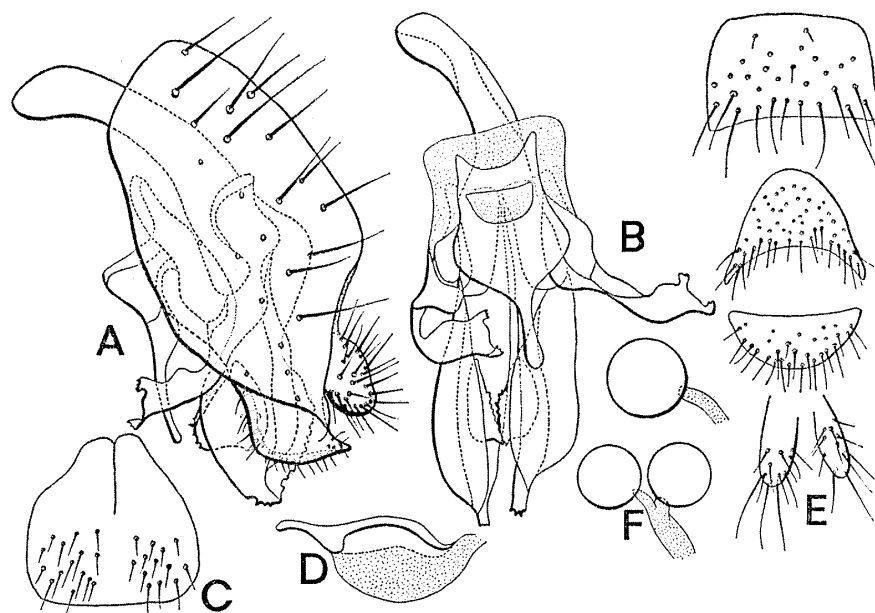


Fig. 1. Male and female genitalia of *Homoneura pyriformis* n. sp. A, Epandrium and phallus, lateral view; B, hypandrium and phallus, ventral view; C, 6th abdominal sternite of male; D, ejaculatory apodeme; E, 8-10th sternites of female; F, spermathecae.

rated tubercles at end; aedeagus humpbacked at base, with a pair of lateral sclerites elevated and serrated near dorsoapical end, accompanying with a pair of suboval and ventrally serrated sclerites; ejaculatory apodeme 145 μm long. Sixth abdominal sternite of male pear-shaped. Ninth sternite of female subtriangular, weakly extending lateroposteriorly; spermathecae orbicular, 55 or 60 μm in diameter.

Holotype ♀ (KPU 226), Osadano, Fukuchiyama, Kyoto Pref., 27. VII. 1977, S. IKEUCHI. Paratypes: 2 ♂ 1 ♀, same locality as holotype, 9. VII. 1977, male genitalia mounted on slides.

Distribution. Japan (Honshu).

27. *Homoneura trifurcata* SASAKAWA et IKEUCHI, n. sp.

Diagnosis. This large, gray-dusted black species is unique by having a pair of processus longi and 3 pairs of processes on aedeagus.

Discussion. It differs from the Oriental *nudiseta* (KERTÉSZ) in having the testaceous legs, and gray-dusted and narrow parafrontalia. Male genitalia of *trifurcata* is somewhat similar to those of the Oriental *maquilingensis* MALLOCH and *trispina* MALLOCH, but most noticeably the surstyli are projected posteriorly in *trifurcata*, while they have not distinct surstyli.

Description. Body length 5.0-5.8 mm, wing length 4.9-5.5 mm. Black; frons sparsely and parafrontalia and face densely gray-dusted, occiput and post-

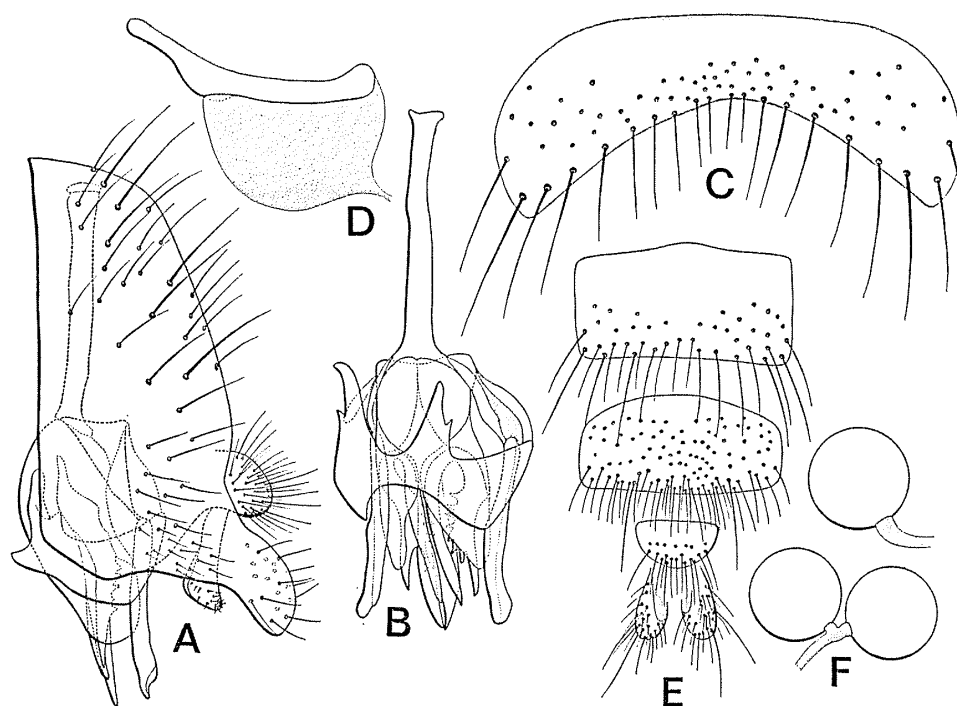


Fig. 2. Male and female genitalia of *Homoneura trifurcata* n. sp., lettering as in Fig. 1.

genae silverly pruinose; antenna and palpus testaceous, arsitae brown; mesonotum dusted with brownish-gray, scutellum and pleura dusted with whitish-gray, humeri brown; abdomen gray-dusted, sternites brown. Wing hyaline, halter pale testaceous. Legs testaceous, coxae and femora darkened.

Frons longer than wide, as wide as eye, slightly divergent ventrally; *oc* about $2/3$ length of anterior *or*; *oh* in a dense row but in 2 rows ventrad of anterior *or*; gena about $1/8$ height of eye; 3rd antennal segment 1.7 times as long as broad, arista minutely pubescent. Mesonotum with $0+3$ *dc*, *acr* in 10 rows, *prsc* slightly longer than 1st *dc*. Wing with costal sections in proportion of 40:10:7; r-m almost at middle of discal cell; ultimate section of M_{1+2} 1.4–1.6 times as long as penultimate, ultimate section of M_{3+4} $1/10$ length of penultimate. Mid tibia with 3 spurs.

Genitalia: Epandrium with surstylus lobate, projected posteroventrally; processus longi boot-like, bearing many colorless spinules on apices; hypandrium narrow, with a pair of horn-like projections on anteroventral part; gonapophysis long, extending nearly to apex of aedeagus; aedeagus consists of 2 pairs of sclerites, lateral pair of which bifurcated and median pair longer than laterals; ejaculatory apodeme $120\ \mu\text{m}$ long. Sixth abdominal sternite of male about 5 times as wide as long, with posterior margin arched. Ninth sternite of female subrectangular; spermathecae orbicular, 100 or $110\ \mu\text{m}$ in diameter.

Holotype ♀, Nigishima, Kumano, Mie Pref., 7. IV. 1972, K. YAMAGISHI;

preserved in coll. at Entom. Lab., Fac. Agric., Kyushu Univ. Paratype ♂, same data as holotype; abdomen mounted on slide.

Distribution. Japan (Honshu).

28. *Homoneura acrostichalis* (DE MEIJERE)

DE MEIJERE, 1915, Tijdschr. Ent. 58 (Suppl.): 51; MALLOCH, 1929, Insects of Samoa, 6: 207.

Diagnosis. This shiny testaceous species is distinct in having 3 black spots on the 5th abdominal tergite, a pair of well-developed acrostichals at level of 2nd dorso-centrals in addition to strong prescutellars and black spinulae densely on lateral edges of the male 5th and 6th tergites.

Specimen examined. 1 ♀, Ohama, Ishigaki-jima, Ryukyus, 23. VIII. 1985, T. HIDAOKA.

Remarks. A couple of specimens from Ogasawara Is. (20. VIII. 1905, MATSUMURA leg., with label of *Sapromyza ogasawarensis*, and one female (Middle August, 1905) with label of *S. chichijimae* (Type) are identical with this species.

Distribution. Japan (Ryukyus, Ogasawaras); Ceylon, Cocos Is. Formosa; Solomon Is. New to Japan.

29. *Homoneura tridentata* SASAKAWA et IKEUCHI, n. sp.

Diagnosis. This new species has a pair of black spots on the 5th abdominal tergite, as found in the Formosan *nudifrons* (KERTÉSZ) and *crassicauda* MALLOCH, but can be distinguished by the shape of surstylus and the presence of processus longus. In *nudifrons* the surstylus is very long and broad, while in *crassicauda* tapered to a sharp point (MALLOCH, 1929, figs. 53 & 54).

Description. Body length 3.5–5.0 mm, wing length 3.7–4.4 mm. Head yellow to testaceous; ocellar triangle pale brown; frons with a pair of brown stripes sometimes opaque; antenna testaceous, arista brown; palpus yellow to testaceous. Thorax and abdomen dull testaceous, sparsely gray-pruinose; mesonotum mat, margin of scutellum somewhat paler; abdomen subshining, with a pair of large, black lateral spots on the 5th tergite, other tergites fuscated variably, sometimes opaque brown central stripe on 2nd to 5th tergites. Wing hyaline, faintly infuscated around both cross-veins; halter yellow. Legs yellow to testaceous.

Frons as long as wide and as wide as eye, slightly diverging ventrally; *oc* about 2/3 of anterior *or*; gena about 1/8 height of eye; antennae separated at bases, being as wide as diameter of 1st antennal segment, 3rd segment 1.4 times as long as wide, slightly narrowing apically, arista pubescent. Mesonotum with 0+3 *dc*, *acr* in 6 rows, *prsc* as long as 1st *dc*. Wing with costal sections in proportion of 40: 10: 7; r-m at middle of discal cell; ultimate section of M_{1+2} about 1.5 (1.3–1.8) times as

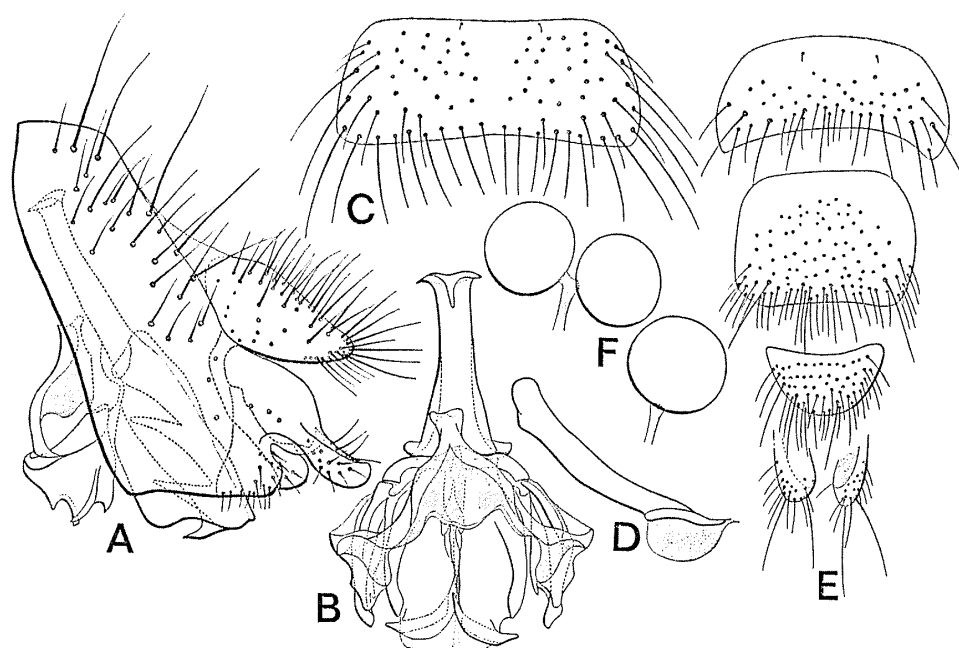


Fig. 3. Male and female genitalia of *Homoneura tridentata* n. sp., lettering as in Fig. 1.

long as penultimate; ultimate section of M_{3+4} about 1/7 length of penultimate. Mid tibia usually with 3 apical spurs.

Genitalia: Epandrium with ventral margin incised just before surstylus; cerci large; processus longi setigerous near apices; hypandrium V-shaped; gonapophysis rather long, with 3 small processes on tip; aedeagus with a pair of well-developed lateral sclerites, bearing 3 pairs of spinose processes on ventral side; ejaculatory apodeme 285 μm long. Sixth abdominal sternite of male and 8th sternite of female more than twice as wide as long, respectively; 9th sternite of female rectangular; spermathecae suborbicular, 105, 110 or 120 μm in diameter.

Holotype ♂ (KPU 227), Koza, Wakayama Pref., 10. IV. 1970, M. SASAKAWA. Allotype ♀, Saga, Kyoto, 1. X. 1979, S. IKEUCHI. Paratypes: HONSHU— 3 ♂, Midoroga-ike, Kyoto, 15. IV. & 2–4. V. 1978, IKEUCHI; 1 ♂ 1 ♀, Takaraga-ike, Kyoto, 4. V. & 2. VI. 1978, IKEUCHI; 1 ♀, Saga, Kyoto, 31. VII. 1977, IKEUCHI; 2 ♀, Ohe Exp. Forest, Kyoto, 19. VIII. 1978, IKEUCHI; 1 ♀, Shimogamo, Kyoto, 11. XII. 1978, IKEUCHI; 1 ♂ 5 ♀, Nigishima, Kumano, Mie Pref., 7. IV. 1972, K. YAMAGISHI (in coll. at Entom. Lab., Kyushu Univ.); 1 ♀, Mirozu, Susami, Wakayama Pref., 12. IV. 1972, YAMAGISHI. KYUSHU— 3 ♂ 2 ♀, Mt. Tachibana-yama, Fukuoka Pref., 20. VII. & 23. XI. 1973, 21. III., 20. IV. & 17. V. 1974, YAMAGISHI; 2 ♂ 1 ♀, Kamiozoegawa, Fuji, Saga Pref., 25. IX. 1973, YAMAGISHI (Kyushu Univ.); 1 ♂, Kumamoto, 24. IV. 1967, M. SUWA (Hokkaido Univ.); 2 ♂ 2 ♀, Miyanoura, Is. Yaku-shima, Kagoshima Pref., 11. IV. & 22. VII. 1971, T. MURATA (Meijyo Univ.). RYUKYUS— 1 ♂ 1 ♀, Yona, Okinawa-honto, 25. IV. & 21. V.

1965, Y. HIRASHIMA & Y. MIYATAKE (Kyushu Univ.); 1 ♂ 2 ♀, Yona, Okinawa, 12–17. VI. 1970, H. MAKIHARA (Kyushu Univ.).

Distribution. Japan (Honshu, Kyushu, Ryukyus).

30. *Homoneura mayrhoferi* CZERNY

CZERNY, 1932, Die Flieg. palaearkt. Reg. 50: 16.

Diagnosis. This testaceous species is recognized without trouble by its specifically marked wings and the long surstyli which are longer than height of epandrium in lateral view.

Main characters are as follows: Frons with a pair of brown stripes. Wing 4.0–4.7 mm long, with 4 fuscous marks, of which 2 anterior and 1 apical ones large and 1 around m-m paler; abdomen with a fuscous posterior margins on 2nd to 6th tergites in addition to a fuscous median longitudinal stripe; epandrium with surstylus extremely prolonged; hypandrium narrow; gonapophysis with 3 setae near paex; aedeagus with a pair of long lateral sclerites, ejaculatory apodeme 50 μm long; spermathecae with necks, 90, 95 or 125 μm in long axis.

Specimens examined. HOKKAIDO—2 ♂, Berabonai, Asyoro, 24. VII. 1967, A. NAKANISHI; 1 ♂, Maruyama, Sapporo, 12. VIII. 1977, S. IKEUCHI. HONSHU—1 ♀, Hiratsudo, Iwate Pref., 22. VI. 1975, K. YAMAGISHI; 1 ♀, Towada, Akita Pref., 15–16. VII. 1968, K. IOKI; 1 ♀, Sayama, Saitama Pref., 20. IV. 1968, H. TAKIZAWA; 2 ♂, Shimashima-dani, Nagano Pref., 13. VIII. 1963, 20. VII. 1968,

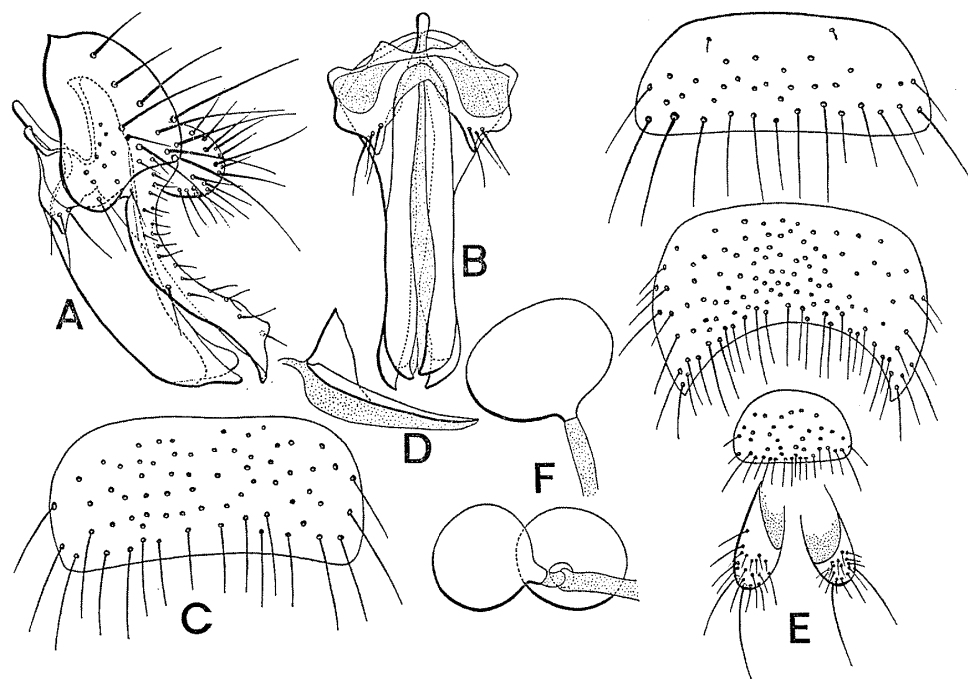


Fig. 4. Male and female genitalia of *Homoneura mayrhoferi* Cz., lettering as in Fig. 1.

T. OKADOME; 1 ♂, Yoro, Gifu Pref., 23. IV. 1967, OKADOME; 1 ♀, Kumano, Mie Pref., 7. IV. 1972, YAMAGISHI; 1 ♂ 2 ♀, Midoroga-ike, Kyoto, 22. & 26. IV. 1978, IKEUCHI; 1 ♂, Takaraga-ike, Kyoto, 3. VII. 1978, IKEUCHI; 2 ♀, Hanase, Kyoto, 19. VII. 1978, IKEUCHI; 2 ♂, Mt. Gagyū, Okayama Pref., 5. IV. 1978, IKEUCHI & O. MORIHARA. SHIKOKU- 2 ♀, Mt. Tsurugisan, Tokushima Pref., VI. 1957, M. SASAKAWA, 14. VI. 1961, J. YUKAWA. KYUSHU- 1 ♀, Gokano-sho, Kumamoto Pref., 19. VII. 1966, K. KANMIYA.

Distribution. Japan (Hokkaido, Honshu, Shikoku, Kyushu); Manchuria. New to Japan.

31. *Homoneura aulatheca* SASAKAWA et IKEUCHI, n. sp.

Diagnosis. This new species is closely related to the Palearctic *notata* FALLÉN, especially in the wing pattern, but has a preapical spot on M_{1+2} , denser rows of acrostichal setae and fasciated thorax and abdomen.

Description. Body length 3.6–4.4 mm, wing length 3.6–4.6 mm. Dark brown to black, gray-dusted; median longitudinal line and anterior margin of frontalia, orbits, parafacialia, postorbits and postgenae yellow to testaceous; face testaceous to pale brown; antenna testaceous, 3rd antennal segment darkened dorsally and anteriorly, arista brown; palpus testaceous to brown. Thorax densely pollinose;

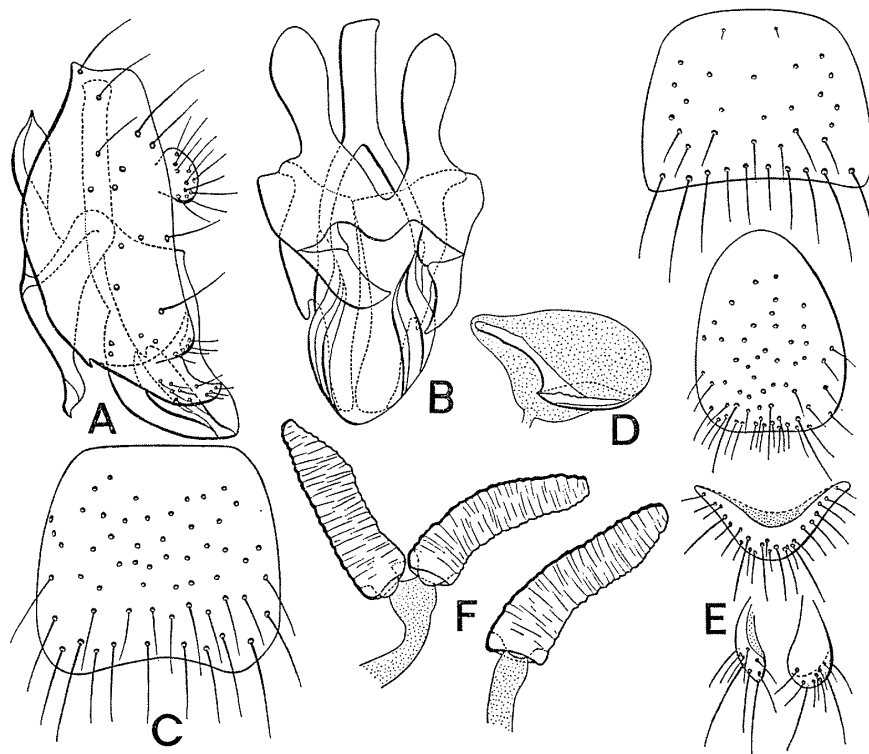


Fig. 5. Male and female genitalia of *Homoneura aulatheca* n. sp., lettering as in Fig. 1.

mesonotum with a pair of fuscous stripes between 2nd and 3rd lateral rows of *acr*, occasionally with a pair of opaque fuscous stripes on rows of *ia*; posterior margin of scutellum yellow to testaceous. Abdomen brown to black, gray-dusted, 3rd–6th tergites with median longitudinal stripes. In summer form, thorax testaceous and abdomen yellow, 3rd–6th tergites each with 2–4 pairs of opaque (rarely distinct) fuscous sublateral spots in addition to fuscous median stripe. Wing with 7 small fuscous spots: on tip of cell *Sc*, around both cross-veins, on apices of R_{2+3} and R_{4+5} , just before apex of M_{1+2} , and 2 spots on R_{4+5} , one of which situated almost at middle between r-m and level of m-m and the other laterad of m-m level, connecting with apical spot on R_{2+3} ; halter yellow. Legs testaceous, coxae and femora sometimes darkened.

Frons wider than long, 1.4 times as wide as eye, almost parallel-sided; *oc* slightly longer than anterior *or*; antennae separated at bases, 3rd segment 1.4 times as long as wide, narrowing apically, arista pubescent. Mesonotum with 0+3 *dc*, 1st *dc* on or very close to suture, *acr* in 6 rows, *prsc* shorter than 1st *dc*. Wing with costal sections in proportion of 20:10:5; r-m before middle of discal cell; ultimate section of M_{1+2} 1.2–1.4 times as long as penultimate; ultimate section of M_{3+4} 1/7–1/10 length of penultimate. Mid tibia with 2 apical spurs.

Genitalia: Epandrium with surstylus projected backwards, weakly pointed on tip; hypandrium Y-shaped; gonapophysis rather broad, extending middle of aedeagus; aedeagus well sclerotized, with 2 longitudinal ridges on each lateral side; ejaculatory apodeme 75 μm long. Sixth abdominal sternite of male subquadrate, darkened laterally; 9th sternite of female long-suboval; spermathecae striated irregularly, 165 or 185 μm long.

Holotype ♂ (KPU 228), Ashoro, Hokkaido, 16. VI. 1954, M. SASAKAWA; allotype ♀, same data as holotype. Paratypes: HOKKAIDO– 2♂, Nukabira, 14. VI. 1954, SASAKAWA; 3♂ 6♀, same data as holotype; 1♂, Akan, 17. VI. 1954, SASAKAWA; 3♂, Shibechea, 19–22. VI. 1954, SASAKAWA; 2♀, Mt. Muine, 13. VIII. 1977, S. IKEUCHI; 1♀, Toro, Shibechea, 3. IX. 1979, Y. YOSHIYASU. HONSHU– 1♀, Mt. Hakkoda, Aomori Pref., 19. VIII. 1966, M. SUWA (Hokkaido Univ.); 1♂ 1♀, Kamikochi, Nagano Pref., 10. VII. 1953, SASAKAWA; 1♂ 2♀, Mt. Hira, Shiga Pref., 3. X. 1954, SASAKAWA; 4♂ 1♀, Saga, Kyoto, 16. III. 1977, IKEUCHI; 2♂ 1♀, Ashiu, Kyoto Pref., 6. VI. 1964, SASAKAWA; 1♂ 2♀, Ashiu, 4. VI. 1977, O. MORIHARA; 3♂ 1♀, Kibune, Kyoto, 5. IV. 1977, SASAKAWA; 14♂ 53♀, Hanase, Kyoto, 25. VII. & 19. VIII. 1978, IKEUCHI; 1♀, Kagamincho, Okayama Pref., 3. XI. 1978, K. KAWADA. SHIKOKU– 1♂, Mt. Tsurugisan, Tokushima Pref., VI. 1957, SASAKAWA.

Distribution. Japan (Hokkaido, Honshu, Shikoku).

Remarks. This species exhibits a seasonal color-variation in the thorax and abdomen described above.

32. *Homoneura securigera* SASAKAWA et IKEUCHI, n. sp.

Diagnosis. Closely related to the Palaearctic *patelliformis* (BECKER), and Mongolian *patella* SHEWELL and *spinidorsum* SHEWELL, in the basic structures of the male genitalia. The size and gena in those allied species are, however, smaller and broader, respectively. Males have the distinct gonapophyses.

Description. Body length 3.2–4.0 mm, wing length 3.2–3.8 mm. Entirely pale testaceous, except brown arista; parafacialia, gena, scutellum and pleura paler; abdominal tergites rarely with brownish spots in some places. Wing hyaline. Legs and halter testaceous yellow.

Frons as long as wide, almost parallel-sided; *oc* subequal to anterior *or* in length; eye very sparsely hairy; gena $1/4$ – $1/5$ height of eye; 3rd antennal segment slightly longer than wide, arista pubescent. Mesonotum with 0+3 *dc*, *acr* in 6 rows, *prsc* nearly as long as 1st *dc*. Wing with costal sections in proportion of 30:10:5.5; r-m slightly beyond middle of discal cell; ultimate section of M_{1+2} 1.8–2.5 times as long as penultimate; ultimate section of M_{3+4} about $1/4$ length of penultimate. Mid tibia with 1–2 apical spurs.

Genitalia: Epandrium with surstylus broad, pointed apically; hypandrium thick; gonapophysis slender and curved; aedeagus membranous on ventral side, with a pair of lateral sclerites elevated at middle and hooked on apices; ejaculatory apodeme 50 μ m long. Sixth abdominal sternite of male almost thrice as wide as

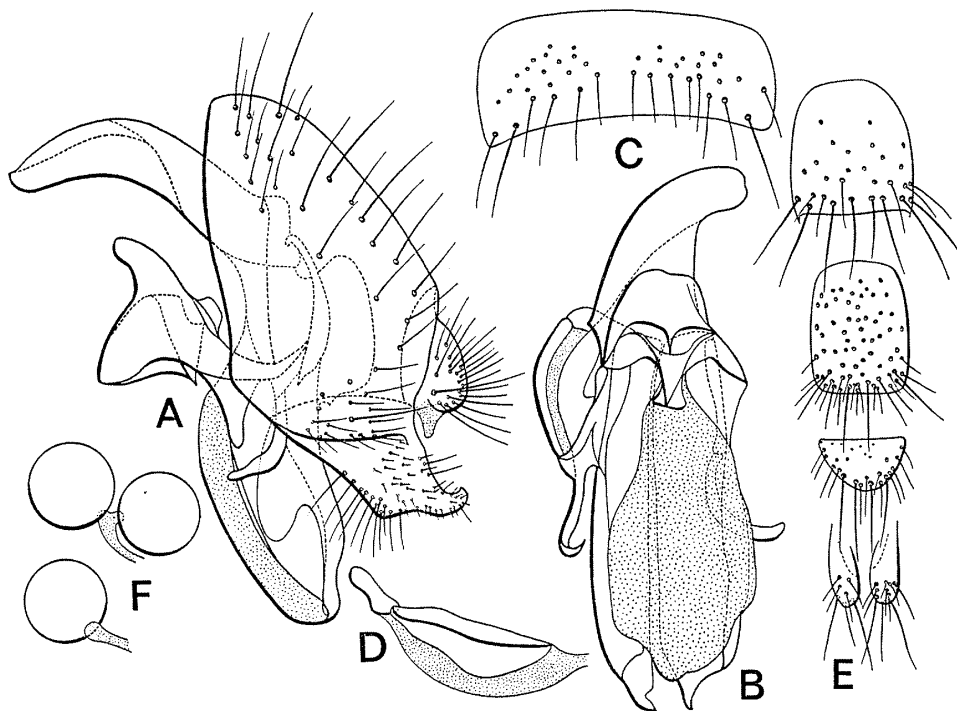


Fig. 6. Male and female genitalia of *Homoneura securigera* n. sp., lettering as in Fig. 1.

long; 9th sternite of female oblong; spermathecae orbicular, 75 μm in diameter.

Holotype ♀ (KPU 229), Shimogamo, Kyoto, 22. VI. 1977, S. IKEUCHI. Allotype ♂, Saga, Kyoto, 31. VII. 1977, IKEUCHI; abdomen and genitalia mounted on slide. Paratypes: 4 ♀, same data as holotype: 1 ♂, Takaraga-ike, Kyoto, 25. VII. 1978, IKEUCHI; 1 ♀, Is. Sado, Niigata Pref., 5. IX. 1966, M. SUWA (Hokkaido Univ.).

Distribution. Japan (Honshu).

Key to Species

1. Arista plumose..... 2
Arista pubescent.....19
2. Wing maculated..... 3
Wing immaculate or only clouded around both cross-veins.....14
3. Wing with anterior margin entirely or almost brown..... 4
Wing with anterior margin clear, only with brown spots..... 6
4. Wing with cells R_1 and R_3 entirely or largely pale to dark brown; thorax testaceous yellow to brown..... 5
Cell R_1 with 4 whitish-hyaline spots, other cells also with many hyaline spots; thorax gray-dusted, with numerous brown spots or patches.....
.....*euaresta* (COQ.)
5. Cell R_1 entirely dark brown; cell R_3 dark brown, with 1 cephaloapical spot and 5 small spots just cephalad of vein R_{4+5} hyaline; mesonotum trivittate, pleura bivittate.....*quinquevittata* (DE MEIJ.)
Cell R_1 pale brown, extending apex of R_{4+5} , fading basally; cell R_3 clouded on anterior half and at apex; mesonotum slightly shining, testaceous yellow, pleura paler than mesonotum.....*hymenophallus* SASA. et IKE.
6. Cell R_1 with with large brown spots..... 7
Cell R_1 clear..... 8
7. Cell R_1 with spots at base and subapically.....*striatifrons* (DE MEIJ.)
Cell R_1 largely whitish, excepting apical spot.....*albomarginata* CZ.
8. Wing with small brown spots at apices of veins Sc and R_1 9
Wing with apices of Sc and R_1 entirely clear.....11
9. Apical spots usually connected with each other, preapical spot on R_{4+5} usually connected with spot on m-m as an oblique band, r-m rarely weakly clouded
.....*hirayamae* (MATS.)
Apical spots isolated or connected, preapical spot on R_{4+5} present or absent, r-m darkened.....10
10. Wing with spots large, preapical spot on R_{4+5} almost midway between r-m and wing tip, usually connected with spot near apex of R_{2+3}*bistriata* (KERT.)
Wing with spots small, preapical spot on R_{4+5} and apical spot on M_{1+2} absent, small preapical spot on ultimate section of M_{1+2}*stackelbergi* CZ.

11. Vein R_{4+5} with 3 spots between r-m and apical spot. *latifrons* MALL.
 R_{4+5} with only apical, or apical and subapical spots. 12
12. Mesonotum with 4 rows of acrostichals; palpus with apical 1/3-1/2 brown to fuscous. *brevicornis* (KERT.)
 Mesonotum with 6 rows of acrostichals; palpus entirely yellow to testaceous 13
13. Vein R_{4+5} usually with preapical spot; surstylus rounded apically.
 *variinervis* (KERT.)
 R_{4+5} without preapical spot; surstylus pointed on tip. *spinicuda* SASA. et IKE.
14. Head and thorax fuscous, the former densely whitish-gray pruinose, the latter with a median dorsal gray stripe extending scutellum and 3 narrow stripes laterally. *discoglauca* (WALK.)
 Head and thorax testaceous yellow. 15
15. Parafacialia silverly pruinose. 16
 Parafacialia not pruinose. 17
16. Frons brown on dorsal 1/3-1/2; 3rd antennal segment largely brown, palpus brown. *repanda* SASA. et IKE.
 Frons and palpus wholly testaceous yellow; 3rd antennal segment with apical 1/3 brown. *unguiculata* (KERT.)
17. Mesonotum with a patch of setulae at anteromesal extremity.
 *panniculata* SASA. et IKE.
 Mesonotum without patch of setulae, with rows of acrostichals extending anterior extremity. 18
18. Surstylus distinctly projected; aedeagus membranous on ventral side.
 *yamagishii* SASA. et IKE.
 Surstylus weakly projected; aedeagus with a pair of oval sclerites on ventral membrane. *spinosa* SASA. et IKE.
19. Male with 6th abdominal sternite bristly or spinose on posterior margin. 20
 Male with 6th abdominal sternite without strong bristles or spines. 26
20. Mesonotum with 4 rows of acrostichals. 21
 Mesonotum with 6 rows of acrostichals. 23
21. Male 6th abdominal sternite subquadrate, broadened posteriorly, bearing about 10 small spines at middle of posterior margin; female with cercus spinose on tip. *extera* CZ.
 Male 6th abdominal sternite unfit for above description; female cercus without spines 22
22. Male 6th abdominal sternite vasiform, with 6-8 stout spines; genitalia without gonapophysis. *interstincta* (FALL.)
 Male 6th abdominal sternite bifurcated distally, bearing 2 stout spines on tip of each branch in addition to median 2 spines. *matsumurai* SASA. et IKE.
23. Wing maculated; eyes bare. 24
 Wing immaculate; eyes sparsely hairy. 25

24. Wing with anterior margin fuscous, extending apical cloud of M_{1+2} ; male 6th abdominal sternite with many stout and several minute spines.....*lagena* SASA. et IKE.
*lagena* SASA. et IKE.
 Wing with anterior margin clear, but clouded on apices of R_{2+3} , R_{4+5} , M_{1+2} and both cross-veins; male 6th sternite trifurcated posteriorly, with 4 spines on median lobe.....*triphylla* SASA. et IKE.
25. Mesonotum with acrostichals all subequal to each other in length; male 6th abdominal sternite with 3–6 pairs of bristles.....*sphincta* SASA. et IKE.
 Mesonotum with 5–6 pairs of median acrostichal-rows longer than others; male 6th sternite with 3–5 spines.....*crucifera* SASA. et IKE.
26. Black species.....27
 Yellow to brownish species.....28
27. Wing 3.0 mm long; mesonotum with 6 rows of acrostichals.....*pyriformis* SASA. et IKE.
*pyriformis* SASA. et IKE.
 Wing 5.0–5.5 mm long; mesonotum with 10 rows of acrostichals.....*trifurcata* SASA. et IKE.
*trifurcata* SASA. et IKE.
28. Abdomen with at least a pair of black spots on 5th tergite.....29
 Abdomen without spots.....30
29. Shiny testaceous, abdomen with 3 black spots on 5th tergite; at least a pair of acrostichals of median rows well developed.....*acrostichalis* (DE MEIJ.)
 Dull testaceous, abdomen with 2 black lateral spots on 5th tergite; all acrostichals equal in length.....*tridentata* SASA. et IKE.
30. Wing maculated.....31
 Wing immaculate; surstylus broad and more or less claw-like on posterior tip.....*securigera* SASA. et IKE.
*securigera* SASA. et IKE.
31. Weakly shining; wing with 4 large brown spots; abdominal tergites with fuscous posterior margins.....*mayrhoferi* Cz.
 Densely gray-dusted; wing with 7 small brown spots; abdomen brown to black, with fuscous central stripe.....*aulatheca* SASA. et IKE.