

Oriental Lauxaniidae (Diptera) Part 4

Fauna of the Lauxaniidae of Laos

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Abstract : Laotian fauna of the lauxaniid flies is studied for the first time. Of the 35 species ascertained, 9 species are new to science, 1 species belonging to the genera *Cerataulina*, *Xangelina* and *Maquilingia*, respectively, 2 to the genus *Cestrotus* and 4 to *Homoneura*; 25 species except for *Noonamyia euphlebia* are newly recorded from Laos, and 2 from Thai. *Homoneura* is the dominant genus as well as in other countries in the Oriental Region. Male genitalia are illustrated for all new species and *Parapachyrcerina hirsutisetata*.

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Key words : Lauxaniid flies, taxonomy, Laos, new species, new record.

Introduction

The present paper deals with the Laotian fauna of the lauxaniid flies based upon the specimens collected by the staff of the Bishop Museum, Hawaii, U. S. A., and the native collectors in Laos in 1960, and 1965-1967.

Although the collection was not sufficient in both quality and quantity for the study of generic and specific diversities of the family in Laos, it was able to fill a faunistical gap for these flies because no general study has yet been made for their fauna (only a fragmentary record done by Sasakawa in 1995). Also, the first records of a few species of the genus *Homoneura* in Thailand were presented in this paper.

Materials and Methods

Materials borrowed from the Bishop Museum were the dried specimens collected mainly by the native collectors in Laos. The male genitalia were macerated with 30% KOH and transferred to distilled water for dissection. After the drawings of genitalia were made with the aid of an ocular grid and section paper, the abdomen with protandrium and genitalia was put into a polyethylene tubule with glycerol, and the tubule was pinned with the specimen.

The holotypes of new species are deposited in the collection of the Bishop Museum, Honolulu, Hawaii 96817, U. S. A.

The terminology, including abbreviations for certain setae or bristles, abdominal segments and wing vein indices, follows Sasakawa (1992), but the fourth and fifth veins (4V & 5V), and outer cross vein (m-m) mean M_1 and CuA_1 , and dm-cu, respectively, in this paper.

Faunistical characteristic

At present 42 genera are known to occur in the Oriental region, of which 15 are homoneurine, the largest

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number known in any zoogeographic region. Among the genera, *Homoneura* van der Wulp, 1891, is the dominant genus in the region as well as in the Australasian/Oceanian and Ethiopian regions (Sasakawa, 1992, 1998). Also, it is well known that the generic and specific diversities of this family is apparently great in islands such as the Philippines and Indonesia, but not so much in the Oriental mainland.

The distribution of the genera, with the dominancy of *Homoneura*, in Laos is on the whole similar to that in the Oriental region. A total of 35 species is recorded for Laotian fauna of the lauxaniid flies at the present time. It is much smaller than those of Malaysia (61 species from Peninsula only; Sasakawa, 1990, 1992, 1995) and Vietnam (77 species; Sasakawa, 1995, 2001; Shatalkin, 1997), but greater than 19 species from Thailand (Sasakawa, 1987). Nine species are described as new to science: 1 species belongs to the genus *Cerataulina* Hendel, 1917, 1 to *Xangelina* Walker, 1856, 1 to *Maquilingia* Malloch, 1929, 2 to *Cestrotus* Loew, 1862, and 4 to *Homoneura*, and 25 species are recorded from Laos for the first time. We except the species more abundantly occur native.

Subfamily Lauxaniinae

1. *Pachycerina decemlineata* de Meijere

Pachycerina decemlineata de Meijere, 1914: 236 (sex?, Java).

See Sasakawa, 2001, p. 40; 2002, p. 46.

Specimens examined. 2 ♂, Paksong, Sedone Prov., 17-18. V. 1965, P.D. Ashlock.

Distribution. Java, Flores, Lombok, Laos, Viet Nam, Formosa, Nepal. New to Laos.

2. *Cerataulina ensiformis* sp. nov. (Fig. 1)

Diagnosis. This testaceous species is distinct in having the brown vittae on scutum, whitish dorsal area on anepisternum and spatulate ventral processes on epandrium.

Male. Head testaceous; frons shiny, brownish in a form of V-shape before black ocellar triangle, with velvety black mark laterad of antenna and just below base of lower or; face glossy black but brownish just ventrad of antennal base; first flagellomere brownish along dorsal margin, arista black; palpus testaceous yellow. Thorax shiny testaceous; scutum with a brown median vitta between dc-rows broadened posteriorly and densely gray-dusted, two brown narrow lines along dc-rows connected with median vitta before posterior ends, and brown lateral vitta broad but narrowly separated from dc-row and narrowly interrupted by transverse suture; scutellum dark brown, densely grayish dusted; anepisternum yellowish white on dorsal half and narrowly brownish just below that area; katepisternum with dorsal margin brown. Wing hyaline, veins yellowish and whitish at base; halter testaceous yellow. Legs pale testaceous, fore tibia and tarsus dark brown. Abdomen shiny, blackish brown; epandrium with ventral processes testaceous; sternites testaceous yellow.

Frons sunken medially, shorter than wide, about 1.3 times as wide as eye; oc minute setula-like; lower or distinctly shorter than the upper; eye oblique, slightly higher than wide, with a distinct V-shaped emargination anteriorly at level of antennal base; gena about 1/4 of eye height; face convex roundly; antenna with scape (first segment) 1.4 times as long as pedicel (second segment), with two distinct setae at ventral apex, first flagellomere (third segment) slightly longer than scape and narrowed apically; arista feathered, slightly shorter than the whole length of antenna; palpus slender.

Scutum with 1+2 dc, without acr, prsc, ia and ipa. Wing: C-index 4.0, r-m at middle of discal cell, 4V-index 2.2, 5V-index 0.23. Legs: f₁ with three pv, t₂ with one spur; pd on t₃ shortest.

S₆ twice as wide as long, S₅ narrower than and as long as S₆, S₄ wider than S₆ and 1.4 times as wide as long. Protandrium very narrow, united dorsally with epandrium; epandrium with surstylus elongated distally, extending anteriorly to posterior margin of S₄ in ventral side; hypandrium narrow, with sclerite interrupted at middle; pregonite short; aedeagus with lateral sclerites expanded distally and membranous between them; aedeagal apodeme almost as long as aedeagus.

Body length 3.5 mm, wing length 3.5-3.6 (holotype) mm.

Female. Unknown.

Holotype male, Phou Kou Khouei, Ban Van Eue, Vientiane Prov., 15. IV. 1965, J.L. Gressitt (BPBM Type

No.16513). Paratype: 1 ♂, Ban Van Eue, 13-15. IV. 1965, native collector.

Distribution. Laos.

Remarks. This new species is easily distinguishable from *C. nigrifrons* Malloch, 1927, known from Sumatra and Viet Nam, by the coloration of thorax and structures of male genitalia (genitalia of *nigrifrons*: see Sasakawa, 2001, fig. 2A).

Etymology. The specific name refers to the 'ensiform' ventral process of epandrium.

3. *Parapachycerina hirsutiseta* (de Meijere) (Fig. 2)

Lauxania hirsutiseta de Meijere, 1910: 131 (♂, ♀, Batavia, Java).

Sapromyza koshunensis Malloch, 1929: 29.

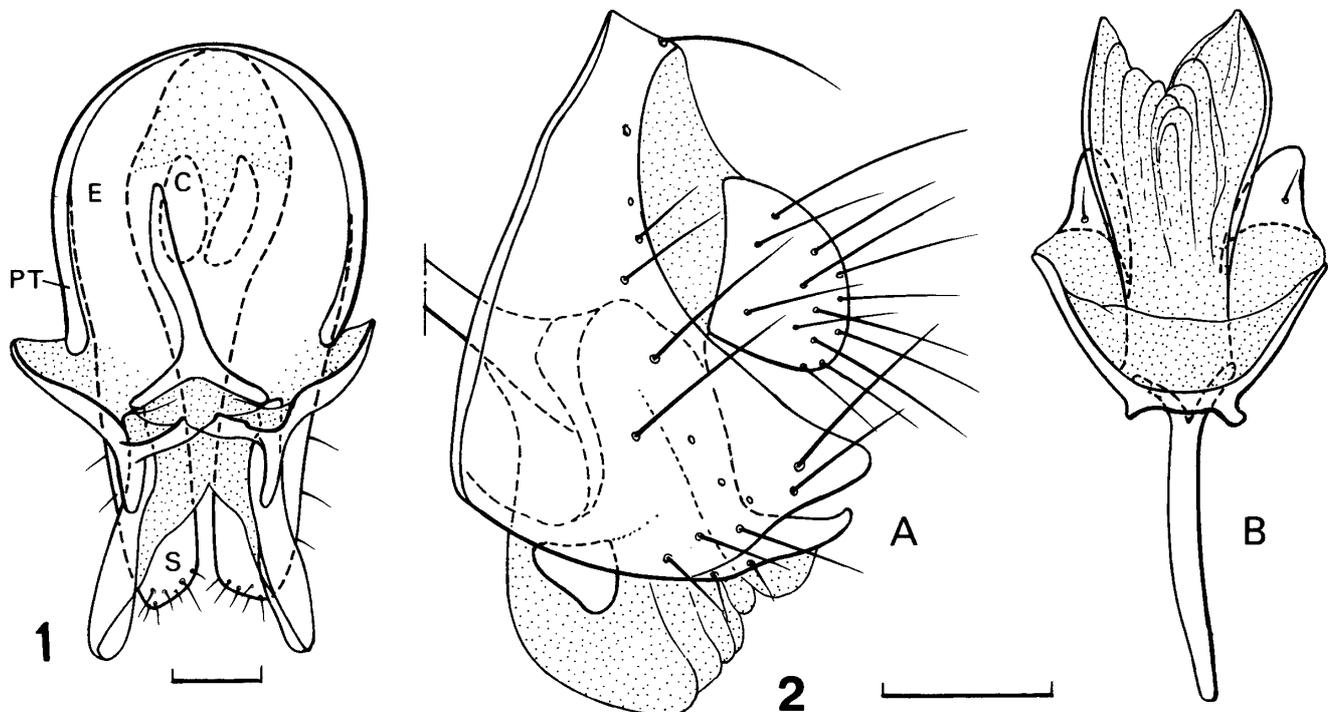
Parapachycerina hirsutiseta: Stuckenberg, 1971: 540.

This testaceous species is characterized by a black large spot which extends to dorsal part of occiput through base of pvt from anterior margin of ocellar triangle, a brown median vitta on scutum, scutellum and abdominal T1-5, upper long or situated far forward on parafrontalia, very short lower or, obviously narrowed and elongate apical part of first flagellomere, and plumose arista. Protandrium is almost as long as epandrium in dorsal side, ringed and is provided with horizontal and very narrow sternite. Epandrium is pale testaceous, broadened ventrally and slightly projected posteriorly at ventro-distal corner; cercus is black; surstylus is somewhat claw-like, sparsely setulose; hypandrium is largely membranous; pregonite is provided with a seta; aedeagus is membranous except for lateral narrow sclerites. Wing length 3.0 mm.

A female examined had the entirely blackish brown dorsal side on T1-6 and pale testaceous on lateral side only, as described by de Meijere on a male.

Specimens examined. 2 ♂ 1 ♀, Wapi, Wapikhamthong Prov., 15. III. 1967; 1 ♀, Pakse, Sedon Prov., 14. V. 1965, P.D. Ashlock.

Distribution. Java, Lombok, Flores, Formosa, Laos, Ceylon, India, Nepal. New to Laos.



Figs. 1-2. Male genitalia of *Cerataulina ensiformis* sp. nov. (1, paratype) and *Parapachycerina hirsutiseta* (de Meijere)(2). 1: anterior view; C, cercus; E, epandrium; PT, protandrium; S, surstylus. 2: A, epandrium and cercus, lateral view; B, hypandrium, pregonite and aedeagus, ventral view. Scale 0.1 mm.

4. *Xangelina basigutta* Walker

Xangelina basigutta Walker, 1856: 32 (♀, Malaya).

This testaceous yellow species is characterized by the glossy frons and face, presence of a pair of black spots at bases of apical scutellar bristles, plumose arista (dorsal longest hair slightly shorter than width of first flagellomere), 1+3 dc and 1+3 acr (posteriormost pair as prsc) on scutum.

The ocellar bristles are distinct but shorter than pvt, although Malloch (1929) described that they are lacking. Cross vein r-m is clear in male, but cross veins r-m and dm-cu in female are very narrowly tinged with brown around the veins. Male T5 is provided with a pair of black round spots.

Specimens examined. 1 ♂, Ban Van Eue, Vientiane Prov., 13-15. IV. 1965, J.L. Gressitt; 1 ♀, Ban Van Eue, 15. VIII. 1966.

Distribution. Malaya, Laos. New to Laos.

5. *Xangelina heteroloba* sp. nov. (Fig. 3)

Diagnosis. This is the third Oriental species for the genus, and is distinctive in the structures of male genitalia with long pre- and post-gonites, and asymmetric lateral sclerites on aedeagus.

Male. Testaceous, shiny; face strongly shining; ocellar triangle and arista excepting base pale brown; thoracic pleura more or less pale or yellowish; scutellum with a pair of dark brown spots at bases of apical bristles; T6 with a pair of brown triangular markings. Wing very faintly tinged with brown, cell Sc slightly brownish before apex, r-m faintly clouded with brown at middle; halter testaceous yellow. Legs testaceous yellow, distal four tarsomeres of fore tarsus and distal two tarsomeres of mid and hind tarsi slightly darkened.

Frons broader than long, 1.4-1.5 times as wide as eye, diverging ventrally; parafrontalia projecting above eye margin in profile, bearing two or, of which lower one about 2/3 length of the upper; oc short, 1/2-1/3 length of lower or; face convex, epistome narrow at middle but extremely broadened laterally; gena about 1/4 of eye height; pm three, short; 5-8 setulae on ventral parafacial ridge; antennae broadly separated at bases, first flagellomere 1.5-1.7 times as long as wide, narrowing apically; arista short-haired, with longest hair nearly quarter as long as width of first flagellomere.

Scutum with 1+3 dc, 1+3 acr in addition to long prsc, two rows of setulae before anteriormost acr; ppl, mpl, stpl each one. Wing: C-index 3.7-4.0, r-m before middle of discal cell, 4V-index 1.6-1.8, 5V-index 0.15-0.16. Legs: f₁ with 4-5 pv, f₃ with one apical ad (shorter than pd on tibia), each tibia with one long pd, t₂ with one distinct spur and one minute one, first to fourth tarsomeres of mid leg each with a pair of four (3-5) comb-like spinulae-rows on ventral apex.

Abdomen with long marginal bristles on tergites; S4-6 each about 1/2 as long as wide. Protandrium short, ringed, but very narrow on sternite, with several setae around spiracle. Epandrium with surstylus projected ventrally and separated from epandrium by suture; hypandrium well-sclerotized on lateral sides, membranous at middle; pregonite curved, pointed apically, and minutely pilose; postgonite setose on tip; aedeagus with lateral sclerites asymmetric in length and shape; aedeagal apodeme slightly longer than aedeagus, broadened vertically at base; ejaculatory apodeme boat-shaped basally, with blade small.

Body length 6.3 (holotype)-6.5 mm; wing length 7.0 (holotype)-7.3 mm.

Female. Similar to male, but T5-6 each with a pair of brown triangular markings; cercus brown; cross vein r-m clear; third to fifth tarsomeres of all tarsi darkened. Frons 1.6-1.7 times as wide as eye; arista with hairs shorter than quarter width of first flagellomere; apical ad on f₃, pd on all tibiae and spur on t₂ shorter than those of male, only first and second tarsomeres of mid leg with comb-like spinulae-rows; body length 5.3-6.0 mm, wing length 6.3 mm.

Holotype male, Phou Kou Khouei, Ban Van Eue, Vientiane Prov., 15. IV. 1965, J.L. Gressitt (BPBM Type No.16514). Paratypes: 7 ♂5 ♀, same data as in holotype.

Distribution. Laos.

Remarks. This new species is similar to *X. basigutta* Walker in the presence of dark spots on scutum, 1+3 dc and 1+3 acr, but is distinguishable from that by the presence of brown spots on T6 in male and T5-6 in female, short hairs on arista, long prsc (not posteriormost acr as in *basigutta*) and distinct lateral sclerites of aedeagus. Also, it differs from *X. formosana* Sasakawa, 2002, in its coloration.

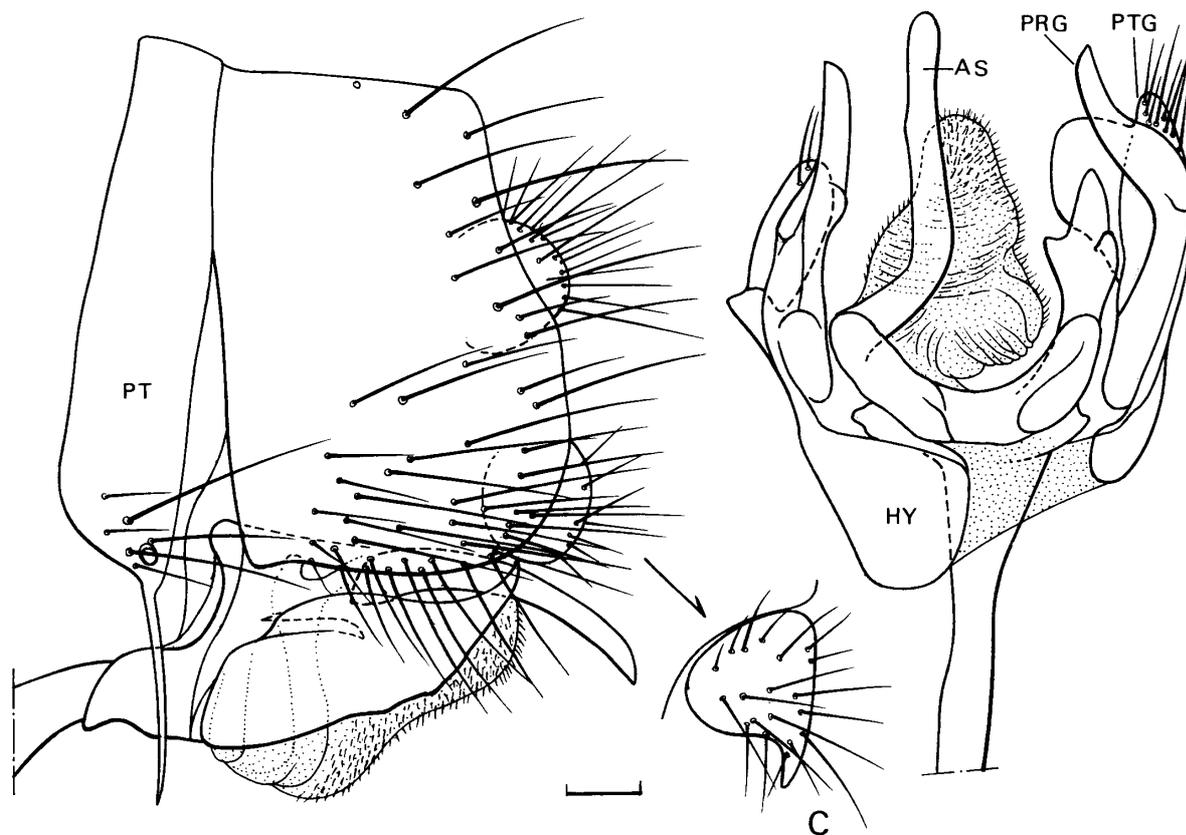


Fig. 3. Male genitalia of *Xangelina heteroloba* sp. nov. (paratype). C, left surstylus, posterior view. AS, aedeagal sclerite; HY, hypandrium; PRG, pregonite; PTG, postgonite.

Etymology. The specific name refers to 'different projection' of aedeagal sclerites.

6. *Trigonometopus (Tetroxyrhina) submaculipennis* Malloch

Trigonometopus submaculipennis Malloch, 1927: 164 (♀, Formosa).

Although a female specimen (de Tha Ngone, Gi Sion Vill., Vientiane Prov., 24-31. X. 1966) examined was small, with the wing length 2.7 mm, and the darkish costal margin and cross veins were obscure, other characters were agreeable with those cited in the original description.

Distribution. Formosa, Viet Nam, Laos. New to Laos.

7. *Minettia (Frendelia) rufiventris* (Macquart)

Lauxania rufiventris Macquart, 1847: 228 (♀, Java).

See Sasakawa, 2001, p.44.

Specimens examined. 2♀, Ban Van Eue, Vientiane Prov., 15. X. 1967, light trap.

Distribution. Java, Sunda, Laos, Viet Nam, Philippines, Formosa, India. New to Laos.

8. *Maquilingia serristylis* sp. nov. (Fig. 4)

Diagnosis. This black species is characterized by the yellowish brown antenna, brown rings on the yellow tibiae, shiny and minutely serrated surstylus, and presence of two setae on pregonite.

Male. Black, densely whitish gray dusted throughout the body; antenna yellowish brown, first flagellomere darkened apically, arista pale yellow on basal thick part and whitish apically, with pubescence white; palpus yellow; abdominal setae growing on small dark spots; surstylus strongly shiny. Wing hyaline, veins pale yellow; calypter with fringe yellowish white. Legs brown but fore coxa and distal margin of mid coxa pale; all knees, tibiae and tarsi testaceous yellow; tibiae each with basal and median pale brown rings,

but median one on fore tibia indistinct.

Frons almost as wide as long, 2.3 times as wide as eye, parallel-sided, with a sparse row of setulae just below level of lower or; oc longer than or; parafrontalia slightly projecting above eye margin in profile and distinctly beyond that at level of antennal base, bearing two reclinate or and two dense rows of setulae; eye twice as long as high at middle, narrowing anteriorly; gena 1/5 of eye height, with one or two setae at middle; face protruded dorsally, almost flat; antenna with first flagellomere about twice as long as wide, rounded on tip; arista 2.5 times as long as first flagellomere.

Scutum with 1+2 or 3 dc (anterior 1-2 postsuturals short), four rows of acr and strong prsc; stpl two. Wing: C-index 6.25, R₄₊₅ ending at wing tip, r-m before middle of discal cell, 4V-index 2.0-2.2, 5V-index 0.3. Legs: f₁ with 4-5 pv, t₂ with one spur.

Abdominal tergites with marginal bristles distinctly long; sternites each very small, S4-6 each 1/7 as long as dorsal length of protandrium, S4 and 5 quadrate and 3/4 as wide as long, S6 slightly wider than long but broadened posteriorly. Protandrium semicircular, with setulae on dorsal side. Epandrium narrowed ventrally, with surstylus projected ventro-caudally and minutely serrated along caudal margin; cercus very long, without long setae; hypandrium narrow, projected posteriorly on lateral apices; pregonite long, bearing two setae on tip; postgonite membranous, densely hairy; aedeagus membranous ventro-mesally, with lateral sclerites well-developed.

Body length 2.4-2.9 (2.8 in holotype) mm, wing length 2.4-2.7 (2.6 in holotype) mm.

Female. Similar to male, but ovipositor black, gray dusted; wing length 2.7 mm.

Holotype male, Phou-kow-kuei, N. of Vientiane, 17. IV. 1965, J.L. Gressitt (BPBM Type No.16515). Paratypes: 2 ♂ 1 ♀, Ban Van Eue, Vientiane Prov., 15. XII. 1965, native collector.

Distribution. Laos.

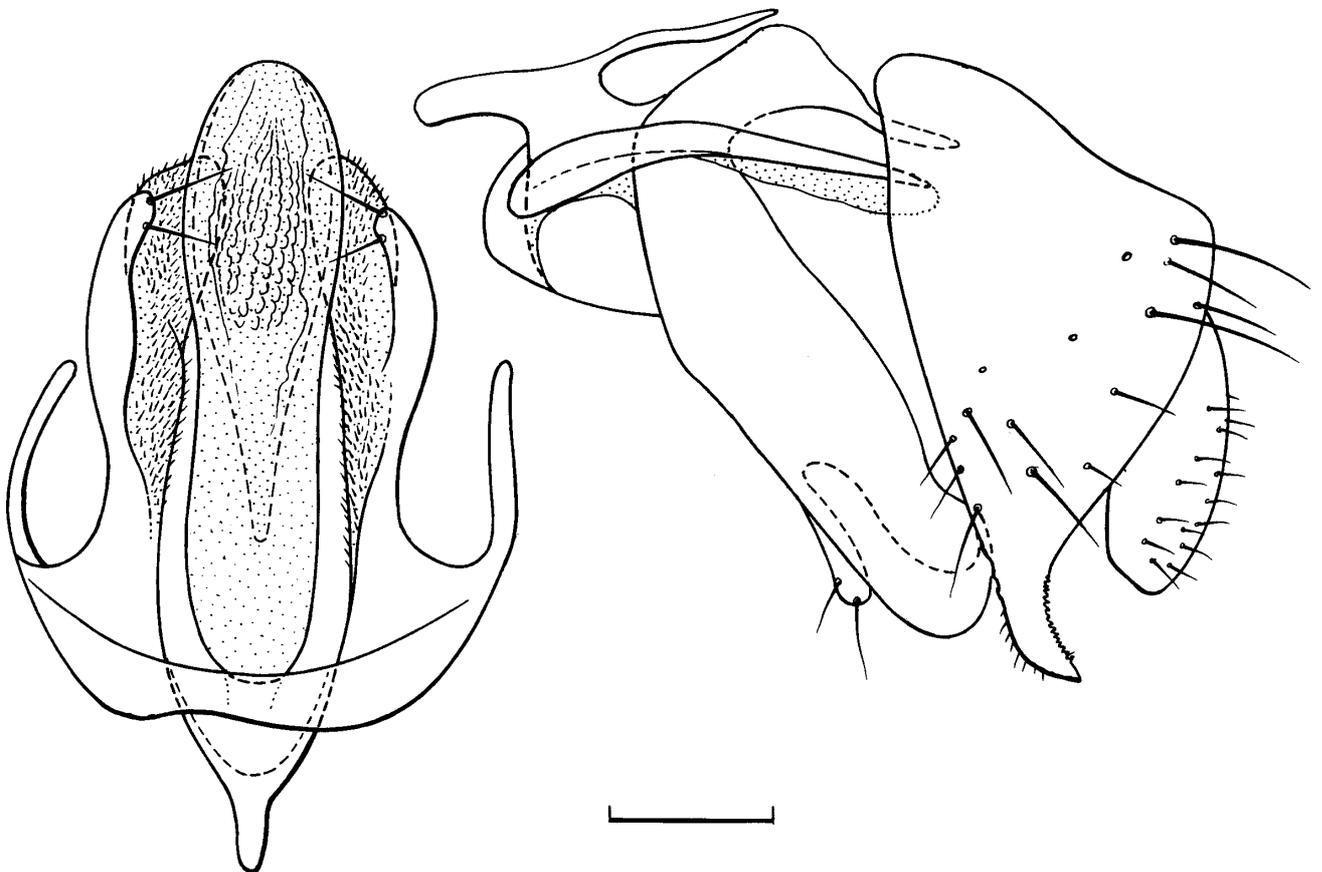


Fig. 4. Male genitalia of *Maquilingia serristylis* sp. nov. (paratype).
See Fig. 2.

Remarks. This new species differs distinctly from *M. hirticeps* Malloch and *facialis* Malloch, known from the Philippines, in the coloration of body.

Etymology. The specific name refers to the serrated surstylus.

9. *Noonamyia euphlebica* Sasakawa

Noonamyia euphlebica Sasakawa, 1990: 131 (♀, Malaya, Borneo); Sasakawa, 1995: 153 (♀, Laos).

See Sasakawa, 1998, p. 50 (♂).

Specimens examined. LAOS: 5♂12♀, Ban Van Eue, Vientiane Prov., 29. III., 30. IV. & 15. VIII. 1966, 15. V., 30. VI., 15. & 30. VIII., 15. & 30. IX. 1967. THAI: 1♂, Chiangdao, 5-11. IV. 1958, T.C. Maa. VIET NAM: 1♂, 6 km S. of Dalat (1,550 m), 12. IX. 1960, J.L. Gressitt; 1♀, DiLinh, 27. IX.-14. X. 1960, C.M. Yoshimoto; 1♂1♀, Fyan (900-1,000 m), 11.VII.-9. VIII. 1960, K.R. Spencer.

Distribution. Malaya, Thai, Laos, Viet Nam, Borneo.

10. *Sapromyza (Sapromyza) sexmaculata* Sasakawa

Sapromyza (Sapromyza) sexmaculata Sasakawa, 2001: 52 (♂♀, Viet Nam).

Specimens examined. 2♀, Ban Van Eue, Vientiane Prov., 30. XI. & 15. XII. 1965; 1♂1♀, Ban Van Eue, 30. III. & 31. V. 1966; 2♂8♀, Ban Van Eue, 15. V., 30. VI., 15. & 30. VIII., 30. IX. & 15. X. 1967.

Distribution. Viet Nam, Laos. New to Laos.

Subfamily Homoneurinae

11. *Cestrotus flavoscutellatus* de Meijere

Cestrotus flavoscutellatus de Meijere, 1910: 142 (sex?, Java).

See Sasakawa, 2001, p. 54.

Specimen examined. 1♀, Ban Van Eue, Vientiane Prov., 15. II. 1966.

Distribution. Java, Laos, Viet Nam, Formosa, Nepal. New to Laos.

12. *Cestrotus trivittatus* sp. nov. (Fig. 5)

Diagnosis. This testaceous species is characterized by the vittate scutum and abdomen, broad gena, spotted wing, presence of long bristles on tergites and epandrium, and long surstylus, pregonite and aedeagal apodeme.

Male. Testaceous, very sparsely dusted with whitish gray; parafrofrontalia and parafacialia pale, ocellar triangle brown, frontalia with a pale brown median stripe extending dorsally to base of pvt but not reaching to ventral margin of frontalia; first flagellomere more or less darkened apically, arista brown except for base; scutum with three brown vittae, of which median one between dc-rows broad and extended posteriorly to bases of apical sc on scutellum, and lateral one above level of postpronotal lobe (humerus), prs- and sa-base less than one-half as wide as distance between rows of dc and sa, and not extended posteriorly to base of pa; anepisternum and katepisternum with brown horizontal stripes at level of mspl and above stpl, respectively, each extending posteriorly to anepimeron or meron as a short and obscure spot; abdomen with a brown median vitta through the tergites but very pale or obscure on T1 and 6. Wing grayish hyaline, with eight brown spots: one around apices of Sc and R₁, three before apices of R₂₊₃, R₄₊₅ and M₁ (apical spot on R₂₊₃ smallest and distinctly separated from wing margin, apical one on R₄₊₅ about twice as long as that on R₂₊₃ and slightly separated from apex of the vein, and apical one on M₁ longer than that on R₂₊₃ and separated from wing margin as well as that on R₄₊₅), two small spots on R₄₊₅ beyond r-m (preapical one connected with apical spot on R₂₊₃), and two around both cross veins; a pale brown median longitudinal stripe on cell R₅ broadened laterally but narrowed mesally, connected indistinctly with spot on r-m and distinctly with apical spots on R₄₊₅ and M₁ in their both ends, united anteriorly with two intermediate spots on R₄₊₅ and posteriorly with spot on dm-cu which is slightly attenuated at middle; halter testaceous. Legs testaceous yellow.

Frons wider than long, about 1.7 times as wide as eye, parallel-sided; occiput concave; parafrofrontalia projecting above eye margin in profile, bearing two or, of which lower one longer than the upper; oc slender,

about one-half length of lower or; eye oblique, nearly 1.35 times as high as wide, slightly emarginated on posterior ventral margin, not narrowed ventrally; parafacialia narrowed laterad of face; gena and lateral part of epistome broad, together one-half as high as eye; pm 5-6, shorter than four setae in parafacial row; face broadened ventrally, with rounded median ridge which is convex distinctly just below ventromost level of eye in profile; antenna with first flagellomere about twice as long as wide, slightly narrowing apically; arista plumose, with dorsal hairs longer than the ventral ones, and longest one slightly longer than width of flagellomere.

Scutum with 0+3 dc, 4(-6) rows of acr, prsc almost as long as first dc; anterior stpl shorter than the posterior. Wing: C-index 2.8, r-m only a little before middle of discal cell, 4V-index 1.35, 5V-index 0.14. Legs: f_1 with ctenidium of 11-12 spinulae, f_2 with 5-7 short a, t_2 with one long spur, all tibiae with short pd.

Abdominal tergites each with long marginal bristles which are almost as long as each tergal length; S6 slightly narrower than long, slightly broadened posteriorly and with a shallow emargination on posterior margin; S5 1.3 times as long as wide, S4 slightly longer than wide. Protandrium ringed, about twice as long as epandrium in dorsal side but distinctly narrowed ventrally and sternal sclerite situated horizontally, and with a row of short marginal setae. Epandrium with very long marginal bristles; surstylus projected narrowly;

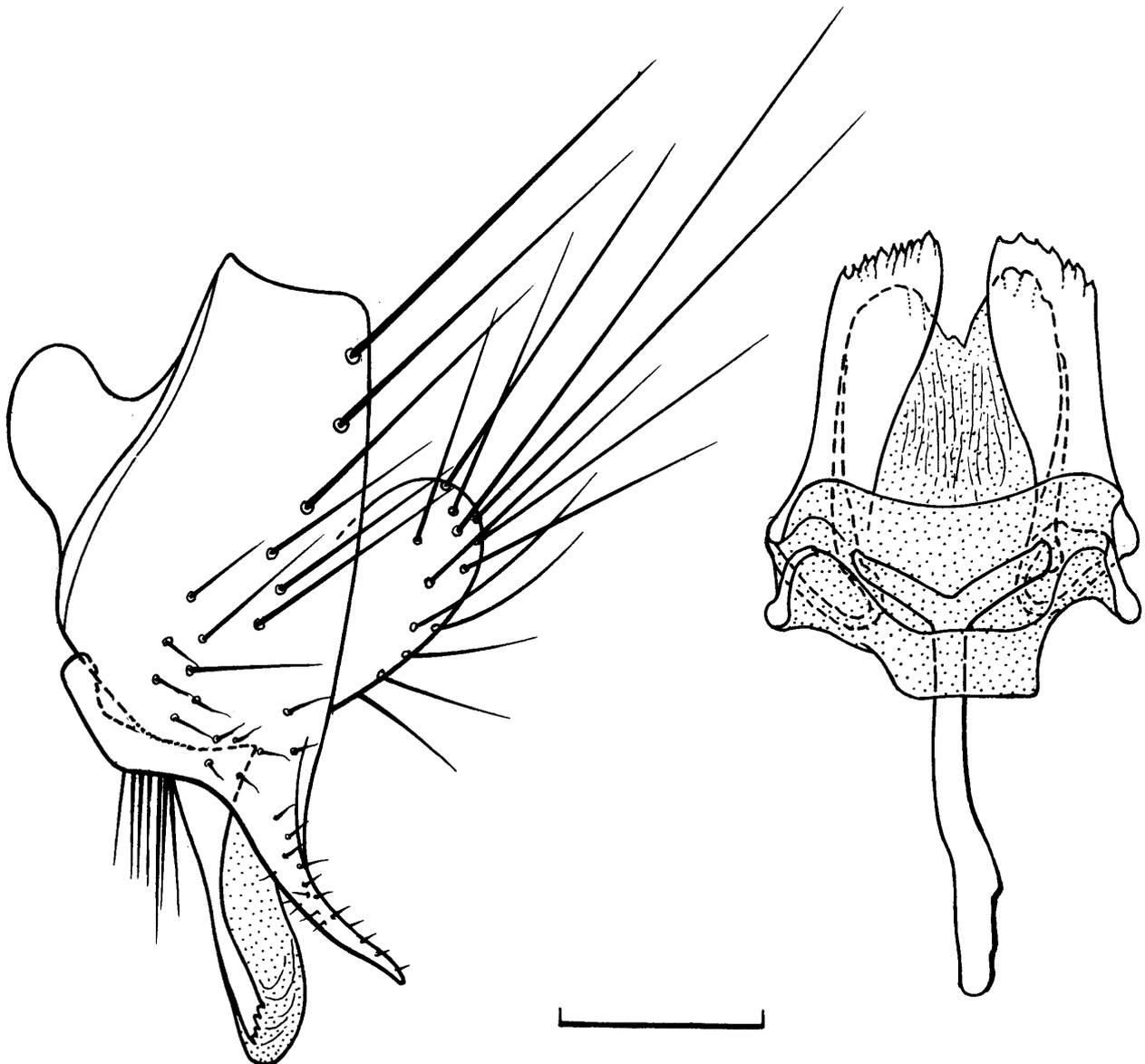


Fig. 5. Male genitalia of *Cestrotus trivittatus* sp. nov. (holotype).

hypandrium only ill-sclerotized on lateral sides; pregonite long, with a serration of minute teeth on tip; aedeagus membranous except for lateral narrow sclerites, aedeagal apodeme long.

Body length 3.6 mm, wing length 3.5 mm.

Female. Unknown.

Holotype male, Ban Van Eue, Vientiane Prov., 30. III. 1966, native collector, Malaise trap (BPBM Type No.16516).

Distribution. Laos.

Remarks. Facial structure and number of mid-tibial spur in this new species indicate a close relation to the type species of the genus *Procestrotus* Stuckenberg, 1971. But their wing patterns are characteristics of some spots in the new species and of bicolor only (brownish on anterior half of wing) in *Procestrotus deemingi* Stuckenberg. Although the humped and ornamental frons is absent in this new species, it belongs to the genus *Cestrotus* Loew, 1862, as well as known formerly in some species of the genus *Turriger* Kertész, 1904 (synonymized with *Cestrotus* by Stuckenberg, 1971). Under the circumstances *Procestrotus* may be considered to be a synonym.

13. *Cestrotus univittatus* sp. nov. (Fig. 6)

Diagnosis. This species is distinct in having only a brown vitta from head to abdominal tergites through thoracic scutum, eight brown spots on wing, a pair of minute spines at postero-ventral corners of epandrium and a claw-like ventral process on surstylus.

Male. Testaceous; head sparsely whitish gray dusted; frontalia with a brown median stripe across ocellar triangle; antenna and palpus testaceous yellow, arista brown except for base; scutum with a brown median vitta which is as wide as a distance between median rows of acr anteriorly but gradually broadened posteriorly and almost as wide as a distance between a pair of prsc at end, moreover extended posteriorly to scutellum and broadened almost to a distance between apical sc; T3-6 each with a brown median fascia (short and indistinct on T6). Wing hyaline, very faintly tinged with yellow, with eight brown spots: very small one on apex of cell Sc, three on apices of R₂₊₃, R₄₊₅ and M₁ (spot on R₄₊₅ slightly separated from apex of the vein; a narrow clear apical margin present between spots on R₄₊₅ and M₁), two small ones on R₄₊₅ beyond r-m, of which preapical one connected with spot on R₂₊₃, and two around both cross veins (spot around dm-cu distinctly attenuated caudad of middle), apical spots on R₄₊₅ and M₁ united with each other indistinctly, longest apical spot on R₂₊₃ nearly 1/3 length of the vein and almost as large as that on M₁; halter yellowish. Legs testaceous.

Frons wider than long, almost twice as wide as eye, parallel-sided; occiput almost flat; oc short, less than 1/3 length of upper or; parafrontalia projecting above eye margin in profile; lower or subequal to the upper in length; eye nearly 1.2 times as high as wide, narrowed ventrally; gena 1/7 of eye height, lateral part of epistome distinct and together 2/7 of eye height; face with median part convex and broadened ventrally; pm 3-4, short, as long as four hairs on ventral margin of parafacialia; antenna with first flagellomere 1.6 times as long as wide; arista plumose, with dorsal hairs longer than the ventral ones and longest hair distinctly 1.5 times as long as width of flagellomere.

Scutum with 0+3 dc, first dc 1/2 length of the third, six rows of acr, prsc shorter than first dc. Wing: C-index 2.75, r-m at middle of discal cell, 4V-index 1.36, 5V-index 0.18. Legs: f₁ with two pv and ctenidium of 9-10 spinulae, f₂ with five a, t₂ with one long and one or two short spurs, pd on t₂ stronger than those on other tibiae.

S6 1.3 times as long as wide, slightly broadened posteriorly and with a shallow emargination on posterior margin; S5 1.4 times as long as wide, quadrate. Protandrium horseshoe-shaped, longer than epandrium in dorsal side but narrowed ventrally. Epandrium with a spine at posterior ventral corner; surstylus well projected posteriorly and with a claw-like ventral process at middle; hypandrium very small, with long pregonite which is minutely pointed on tip; aedeagus membranous on ventral side, with lateral sclerite curved dorsally at distal end and pointed apically; aedeagal apodeme thick.

Body length 3.5 mm, wing length 3.6 mm.

Female. Similar to male, but T6 without brown fascia, gena and lateral part of epistome broader,

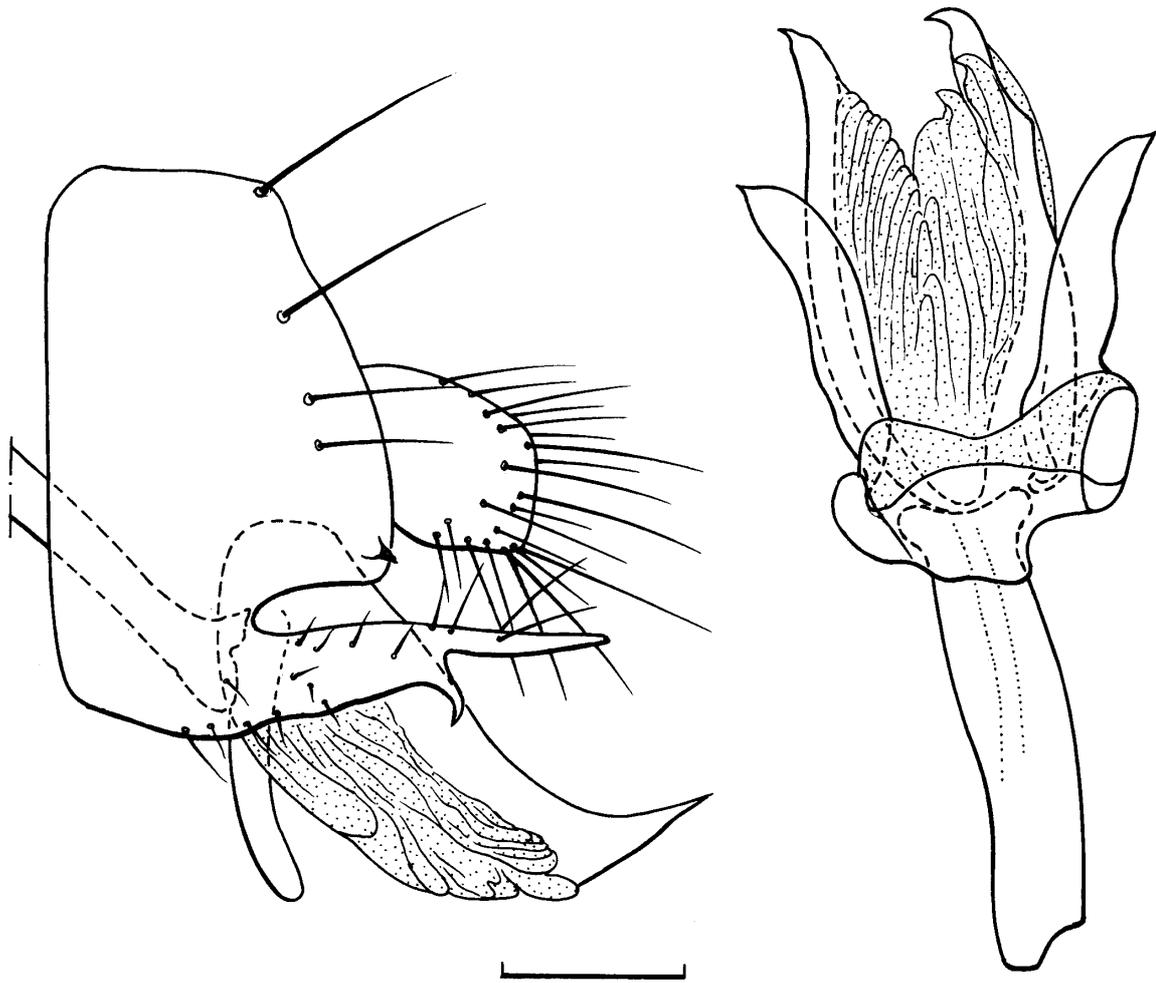


Fig. 6. Male genitalia of *Cestrotus univittatus* sp. nov. (holotype).

together about 1/4 as high as eye; body length 3.2 mm.

Holotype male, Ban Van Eue, Vientiane Prov., 15. XII. 1965, native collector (BPBM Type No.16517). Paratype: 1 ♀, same locality as holotype, 31. XII. 1965, native collector.

Distribution. Laos.

Remarks. The wing pattern of this new species is somewhat similar to that of *C. trivittatus* n. sp., but the number of vittae on scutum and structures of male genitalia are quite different from each other.

14. *Homoneura (Neohomoneura) bigibba* Sasakawa

Homoneura (Neohomoneura) bigibba Sasakawa, 2001: 70 (♂, Viet Nam).

This testaceous species is distinctive in having two projections on surstylus. A male specimen examined was identical with the original description except for the apical wing marking which is larger and situated almost at same vertical level of cross vein dm-cu.

Specimen examined. 1 ♂, Pon-hom, N. of Pakkading, 20. IV. 1965, J.L. Gressitt & J.A. Rondon.

Distribution. Viet Nam, Laos. New to Laos.

15. *Homoneura (Neohomoneura) diphylla* Sasakawa

Homoneura (Neohomoneura) diphylla Sasakawa, 2001: 58 (♂, Viet Nam).

Specimen examined. 1 ♀, Ban Van Eue, Vientiane Prov., 31. XII. 1968.

Distribution. Viet Nam, Laos. New to Laos.

16. *Homoneura (Neohomoneura) honesta* (Kertész)

Lauxania (Minettia) honesta Kertész, 1915: 532 (♂ ♀, Formosa).

See Sasakawa, 1992, p. 145.

Specimen examined. 1 ♀, Mg. Pakse(400 m), Sedone Prov., 6. IX. 1967, F.G. Howarth.

Distribution. Formosa, Thai, Malaya, Cambodia, Laos, Viet Nam. New to Laos.

17. *Homoneura (Neohomoneura) lateriloba* Sasakawa

Homoneura (Neohomoneura) lateriloba Sasakawa, 2001: 67 (♂, Viet Nam).

This testaceous species is distinctive in having the large lobate surstylus in male genitalia. The both sexes of specimens examined were not provided with the median dark fasciae on the posterior tergites, and were provided with the distinct posteriormost ia and posterior sa which are longer than those of the type specimens.

Specimens examined. 1 ♂3 ♀, Ban Van Eue, Vientiane Prov., 15. III. & 30. VII. 1965, Malaise and light traps; 3 ♂3 ♀, Ban Van Eue, 15. III., 15. V., 15. VIII. & 15. XII. 1966; 2 ♀, Ban Van Eue, 15. II. & 15. V. 1967.

Distribution. Viet Nam, Laos. New to Laos.

18. *Homoneura (Neohomoneura) longiseta* Sasakawa

Homoneura (Neohomoneura) longiseta Sasakawa, 2001: 62 (♂ ♀, Viet Nam).

This species is unique in having the extremely long bristles on ventral side of cercus and extremely long pd on hind tibia.

Specimens examined. 2 ♂2 ♀, Ban Van Eue, 15. IV., 30. VI. & 15. VIII. 1966, 30. IX. 1967.

Distribution. Viet Nam, Laos. New to Laos.

19. *Homoneura (Homoneura) beckeri* (Kertész)

Sapromyza beckeri Kertész, 1900: 266 (♂ ♀, Singapore).

See Sasakawa, 1992, p. 164.

Specimens examined. 1 ♀, Sayaboury, Sayaboury Prov., 24. III. 1966, Malaise trap; 1 ♂, Wapi, Wapikhamthong Prov., 31. V. 1967; 6 ♀, Vientiane, Vientiane Prov., 28-31. VII. & 3-4. VIII. 1965; 1 ♀, Ban Van Eue, 15. XII. 1966.

Distribution. Java, Sumatra, Krakatau, Lombok, Formosa, Malaya, Thai, Laos, India, Nepal. New to Laos.

20. *Homoneura (Homoneura) evittata* sp. nov. (Fig. 7)

Diagnosis. This new species is distinctive in having eight (or six) brown spots on wing, minute teeth on surstylus and a pair of claw-like processes on dorsal side of aedeagus.

Male. Testaceous, very sparsely dusted with whitish gray; face, gena and palpus yellowish, ocellar triangle and arista pale brown; occiput with ventral half pale brown and setulose area surrounded by whitish pruinose quadrate frame; scutum without vitta; T5 and 6 each with a brown narrow fascia; epandrium yellow, surstylus testaceous. Wing faintly tinged with gray, with eight brown spots, but preapical spot on R₄₊₅ (about 3/4 length of the apical spot on R₂₊₃) connected with apical spot on R₂₊₃ (about 1/5 length of the vein) as a single spot, apical spot on R₄₊₅ (slightly smaller than the preapical one) connected with that on M₁ as a single apico-marginal cloud, and basal extremity of apical spot on M₁, which is largest among the spots, connected slightly with preapical spot on R₄₊₅, apical spot on cell Sc smallest, basal one of two spots on R₄₊₅ beyond r-m about 1/2 length of the preapical one, two spots around both cross veins circular but that on dm-cu distinctly attenuated at middle; halter testaceous. Legs pale testaceous.

Frons slightly wider than long, about 1.3 times as wide as eye, almost parallel-sided; oc about 1/2 length of lower or; lower or 3/4 length of the upper; face slightly convex at middle throughout vertical length, epistome narrowed below gena; gena slightly wider than lateral epistome and about 1/9 of eye height; pm 6-7; antenna with first flagellomere twice as long as wide, slightly narrowing apically; arista short-haired, with longest hair approximately 3/5 as long as width of flagellomere.

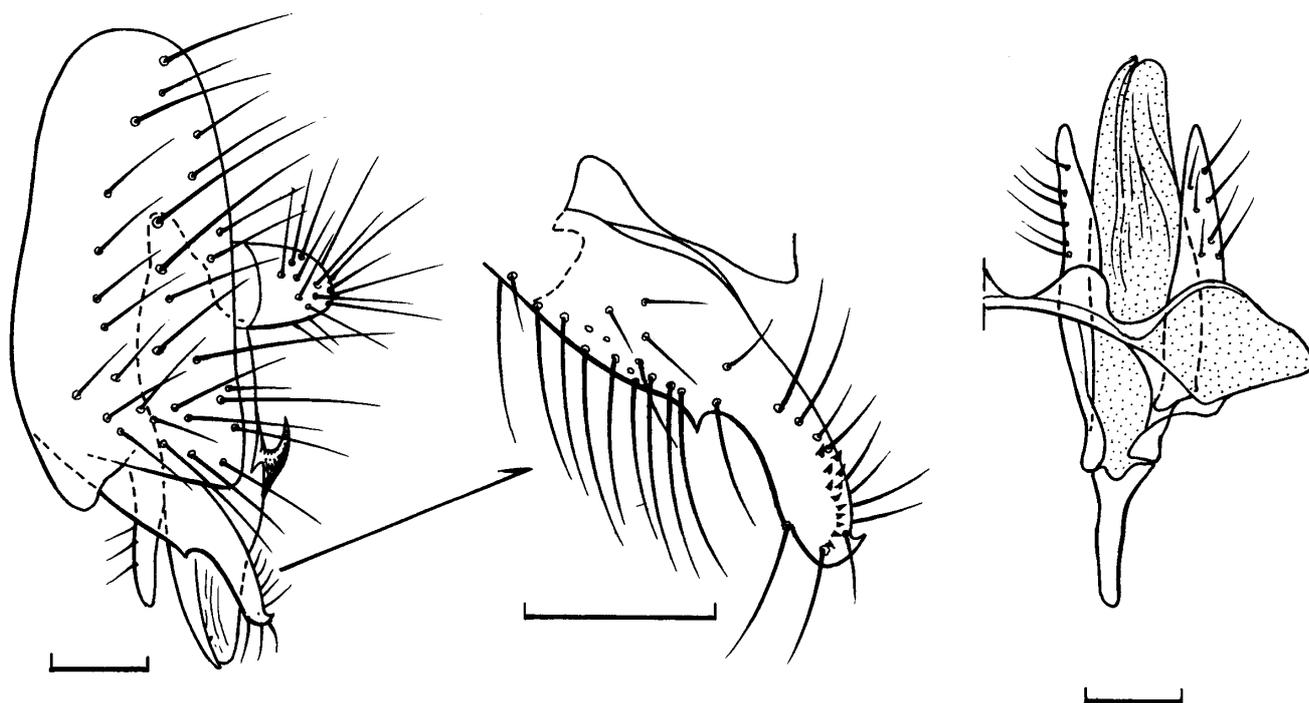


Fig. 7. Male genitalia of *Homoneura (H.) evittata* sp. nov. (holotype).

Scutum with 0+3 dc, eight rows of acr, prsc about 1/2 length of posteriormost dc. Wing: C-index 2.5, r-m at middle of discal cell, 4V-index 1.35, 5V-index 0.15. Legs: f_1 with three long pv and ctenidium of 12-14 spinulae, f_2 with 6-7 a, t_2 with two long and one short spurs, all pd on tibiae long.

S5 and 6 each about 1.2 times as wide as long, with postero-lateral setae longer than others. Protandrium horseshoe-shaped, longer than epandrium in dorsal side but distinctly narrowed ventrally, and with short setae along posterior margin. Epandrium rather densely setigerous; surstylus well projected, with minute teeth at middle of ventral side and on tip, respectively; hypandrium ill-developed, pregonite long and setose; aedeagus with a pair of claw-like processes at middle of dorsal side of lateral sclerites, aedeagal apodeme very short.

Body length 3.9 mm, wing length 3.8 mm.

Female. Unknown.

Holotype male, Luang Prabang (300 m), 4-5. VI. 1960, L.W. Quate (BPBM Type No.16518).

Distribution. Laos.

Remarks. Although this new species has the spotted wing which is similar to that of *H. (H.) subvittata* Malloch, 1927, but the head and scutum are not vittate, and also its male genitalia are distinctive as figured.

21. *Homoneura (Homoneura) fasciventris* Malloch

Homoneura fasciventris Malloch, 1927: 169 (♂, Formosa).

See Sasakawa, 1992, p. 173.

Specimens examined. 1 ♂ 1 ♀, Ban Van Eue, 17. & 28. II. 1966; 2 ♀, Ban Van Eue, 30. III. 1966, Malaise trap; 1 ♂ 3 ♀, Ban Van Eue, 11-13. IV. 1965, J.L. Gressitt; 1 ♀, Savannakhet, Savannakhet Prov., 15. IV. 1967; 1 ♀, Muong Sing (650 m), NW. of Luang Prabang, 6-10. VI. 1960, S. & L. Quate; 2 ♂ 6 ♀, Ban Van Eue, 14. IV., 15. VIII. & 15-31. XII. 1965; 1 ♀, Paksong, 20. VIII. 1965; 1 ♂ 1 ♀, Ban Van Eue, 15. X. 1967, light trap.

Distribution. Formosa, Borneo, Malaya, Laos, Viet Nam. New to Laos.

22. *Homoneura (Homoneura) hypocrius* sp. nov. (Fig.8)

Diagnosis. This testaceous species is characterized by the spotted wing, shape of protandrium, and

specific structures of surstylus and hypandrium of male genitalia.

Male. Testaceous; frontalia laterally and ocellar triangle slightly tinged with brown; parafacialia and gena more or less pale; antenna with flagellomere slightly darkened apically, arista pale brown; palpus testaceous yellow; scutum very sparsely gray dusted, weakly shiny; pleura somewhat paler than scutum and scutellum; abdomen weakly shiny. Wing hyaline, with brown spots at apices of R_{2+3} , R_{4+5} and M_1 , around both cross veins, and a spot at middle of R_{4+5} which is connected anteriorly with apical spot on R_{2+3} and posteriorly with spot on dm-cu as an oblique stripe, preapical spot on R_{4+5} as large as or slightly smaller than apical spot on R_{2+3} and larger than its apical spot; calypter with fringe pale testaceous. Legs with tibiae paler than other segments.

Frons as wide as long, nearly 1.3 times as wide as eye, almost parallel-sided; parafrontalia slightly projecting above eye margin in profile; lower or about 3/4 length of the upper; oc almost as long as lower or; eye about 1.2 times as high as wide; gena almost 1/9 of eye height; pm 5, short; face flat, with antennal grooves shallow; antenna with first flagellomere twice as long as wide, slightly narrowing apically; arista plumose, with dorsal long hair on its basal half 1.2-1.6 times as long as width of flagellomere.

Scutum with 0+3 dc, eight rows of acr, prsc about 1/3 length of posteriormost dc. Wing: C-index 2.8, r-m at middle of discal cell, 4V-index 1.24, 5V-index 0.13. Legs: f_1 with two long pv and ctenidium of 9-11 spinulae, f_2 with 6-7 a, t_2 with inner spur 1/2 length of the outer and pd distinctly stronger than those on other tibiae.

S4 one-half as long as wide, S5 slightly longer than S4, S6 slightly wider than S4-5, 2/3 as long as wide, with a shallow concavity at middle of posterior margin. Protandrium ringed, with a pair of sternal

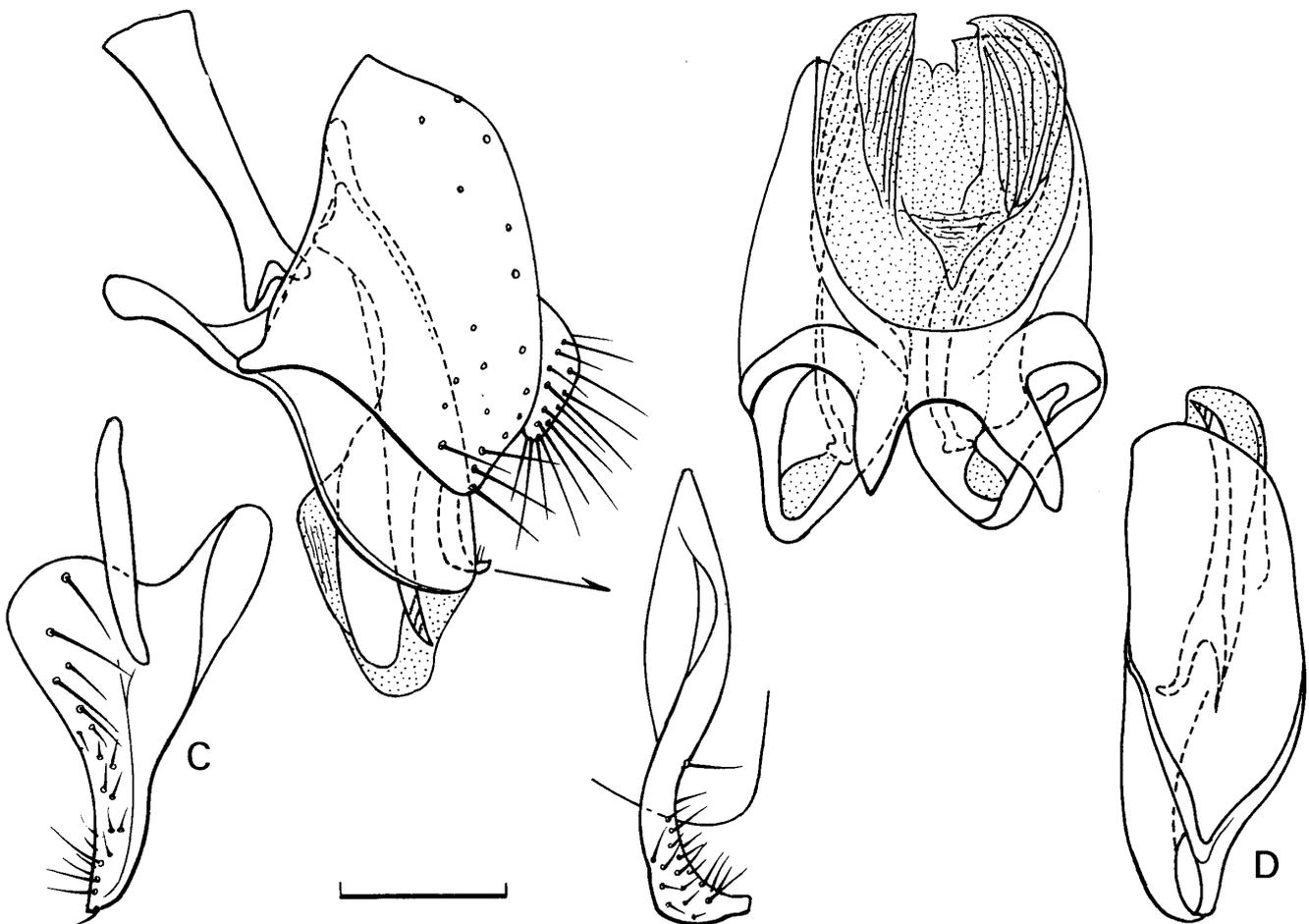


Fig. 8. Male genitalia of *Homoneura* (*H.*) *hypocrius* sp. nov. (holotype). C, surstylus, inner view; D, left half of aedeagus, dorsal view.

projections, which are about 1/2 height of tergal ring, extended downward straightly. Genitalia: Surstylus separated from epandrium, projected posteriorly on tip, setose on inner side; hypandrium with basal apodeme short, but ventro-lateral lobe large and well projected, almost covering the aedeagus; gonite narrow, with three rows of minute serration on tip; aedeagus with ventro-distal parts brown and striated; ejaculatory apodeme paddle-shaped, 370 μ long.

Body length 3.5 mm, wing length 3.3 mm.

Female. Similar to male, but frons wider than long, nearly 1.5 times as wide as eye; prsc short, about 1/4 length of the third dc; body length 3.6 mm, wing length 3.6-3.7 mm.

Holotype male, Ban Van Eue, Vientiane Prov., 30. VI. 1967, native collector (BPBM Type No.16519). Paratypes: 1 ♂3 ♀, same locality as holotype, 31. XII. 1965, light trap; 30. III. 1966 & 30. IX. 1967, native collectors.

Distribution. Laos.

Remarks. This new species somewhat resembles *H. (H.) variinervis* (Kertész, 1913) in the wing pattern, but the preapical spot on R_{4+5} is usually connected with spots on R_{2+3} and dm-cu. The male genitalia of *hypocrius* are distinctive; male genitalia of *variinervis* - see Sasakawa & Ikeuchi, 1982, fig. 9.

Etymology. The specific name is from the Greek, meaning 'projection of hypandrium'.

23. *Homoneura (Homoneura) immaculata* (de Meijere)

Lauxania immaculata de Meijere, 1910: 78 (♀, Java).

See Sasakawa, 1992, p. 181.

Specimens examined. 2 ♂4 ♀, Ban Van Eue, 28. II. & 29. IV. 1966, 30. IX. & 15. X. 1967, 30. XI. 1965.

Distribution. Java, Malaya, Laos, Viet Nam. New to Laos.

24. *Homoneura (Homoneura) laticosta* (Thomson)

Geomyza laticosta Thomson, 1869: 598 (sex?, Singapore).

See Sasakawa, 1992, p. 181.

Specimens examined. 1 ♂, Ban Theuong, 18 km NW. of Xieng Khouang (1035 m), 2-6. VIII. 1960, R.E. Leech; 2 ♀, Dong Dok, 30. VII. & 6. VIII. 1965; 1 ♀, Nongtevada, 6. VIII. 1965; 1 ♀, Paksane, Borikhane Prov., 9. IX. 1965; 4 ♀, Ban Van Eue, 30. XI. & 15-31. XII. 1965.

Distribution. Java, Borneo, Malaya, Thai, Laos, Viet Nam, Philippines, Formosa; Solomon Is. New to Laos.

25. *Homoneura (Homoneura) mediosignata* (Frey)

Mallochomyza mediosignata Frey, 1927: 34 (♂, Philippines).

See Sasakawa, 1992, p. 185.

Specimens examined. 1 ♀, Ban Van Eue (800 m), 11. IV. 1965, J.L. Gressitt; 1 ♀, Pakse, Sedone Prov., 23. V. 1965, P.D. Ashlock; 1 ♂, Tha Ngone, Vientiane Prov., 29. VII. 1965; 2 ♂2 ♀, Vientiane, 31. VII. & 3. VIII. 1965; 1 ♀, Nongtevada, 6. VIII. 1965; 1 ♂, Paksane, Borikhane Prov., 17. VIII. 1965; 1 ♀, Mg. Paksong (960 m), 2. IX. 1967, F.G. Howarth; 1 ♂, Dong Dok, 20. IX. 1965; 1 ♂8 ♀, Ban Van Eue, 15. X. 1967, light trap.

Distribution. Philippines, Borneo, Laos, India. New to Laos.

26. *Homoneura (Homoneura) picta* (de Meijere)

Drosomyia picta de Meijere, 1904: 114 (♂ ♀, Java).

See Sasakawa, 1992, p. 192.

Specimens examined. 2 ♀, Mg. Paksong (960 m), 2. IX. 1967, Howarth; 9 ♂8 ♀, Ban Van Eue, 30. XI. 1965; 3 ♂5 ♀, Ban Van Eue, 15. & 31. XII. 1965, Malaise trap.

Distribution. Java, Sumatra, Borneo, Malaya, Thai, Laos, Formosa, China, India, Nepal. New to Laos.

27. *Homoneura (Homoneura) quinquevittata* (de Meijere)

Lauxania quinquevittata de Meijere, 1910: 135 (sex?, Java).

See Sasakawa, 1992, p. 195.

Specimens examined. LAOS: 1 ♂, Ban Van Eue, 30. III. 1966, light trap; 2 ♀, Ban Van Eue, 31. XII. 1965, light trap. THAI: 1 ♂, Chiangmai, Fang, 12-19. IV. 1958, T.C. Maa.

Distribution. Java, Sumatra, Borneo, Malaya, Thai, Laos, Philippines, Formosa, Japan, India, Nepal. New to Laos and Thai.

28. *Homoneura (Homoneura) quiquenotata* (de Meijere)

Sapromyza quiquenotata de Meijere, 1915: 137 (sex?, Java).

See Sasakawa, 1992, p. 194.

Specimens examined. 1 ♂, Ban Van Eue, 29. IV. 1966, light trap; 1 ♀, Ban Van Eue, 15. V. 1966; 1 ♀, Ban Vann Eue, 15. IX. 1967, Malaise trap.

Distribution. Java, Borneo, Malaya, Laos, Viet Nam, Formosa. New to Laos.

29. *Homoneura (Homoneura) sauteri* Malloch

Homoneura sauteri Malloch, 1927: 171 (♂ ♀, Formosa).

See Sasakawa, 1992, p. 196.

Specimens examined. 3 ♀, Ban Van Eue, 15. & 30. VIII. 1967, 30. IX. 1967; 1 ♀, Wapi, Wapikhamthong Prov., 15. IX. 1967.

Distribution. Borneo, Malaya, Laos, Viet Nam, Formosa. New to Laos.

30. *Homoneura (Homoneura) serrata* sp. nov. (Fig. 9)

Diagnosis. This testaceous species is distinctive in having the clear (faintly fulvescent) wing, blackish T5-6, and apically curved and serrated aedeagus.

Male. Testaceous, sparsely whitish gray dusted; antenna slightly tinged with brown, arista black except for base; T5-6 brownish black, protandrium and epandrium brown, cercus pale. Wing hyaline, faintly tinged with yellow; halter and legs testaceous.

Frons as wide as long and also as wide as eye, parallel-sided; parafrontalia projecting linearly beyond eye margin in profile; oc as long as lower or which is shorter than the upper; eye 1.2 times as high as wide; gena very narrow, lateral side of epistome wider than gena, together approximately 1/7 of eye height; pm 6-7, rather long; face slightly convex along median line; antenna with first flagellomere 1.4 times as long as wide; arista sparsely plumose, with dorsal longest hair 1.7 times as long as width of first flagellomere.

Scutum with 0+3 dc, ten rows of acr, prsc as long as first dc. Wing: C-index 3.3, r-m before middle of discal cell, 4V-index 1.15, 5V-index 0.15. Legs: f₁ with 4-5 pv and ctenidium of 12-13 spinulae, f₂ with 5-6 a, all tibiae with pd, t₂ with two long and one short spurs.

S6 slightly narrower than long, but S4 and 5 slightly wider than long. Protandrium ringed, broadly V-shaped in ventral side, longer than epandrium in dorsal side, with a seta near spiracle. Epandrium with surstylus well projected and setulose; hypandrium H-shaped, pregonite narrow and slightly knob-like on tip; aedeagus with lateral sclerites curved dorsally on distal ends and each with a serration of minute teeth apically, aedeagal apodeme as long as aedeagus.

Body length 5.5 mm, wing length 4.7 mm.

Female. Unknown.

Holotype male, Ban Van Eue, Vientiane Prov., 13. IV. 1965, J.L. Gressitt (BPBM Type No.16520).

Distribution. Laos.

Remarks. This species is somewhat related to *H. signata* (van der Wulp, 1881) in the coloration of wing and posterior abdominal tergites, but T5-6 are not spotted and entirely black in this new species. Also, the shapes of its surstylus, hypandrium with pregonite and aedeagus are distinguishable from those of the related species (genitalia of *signata* - see Sasakawa, 1992, fig. 34).

Etymology. The specific name refers to the 'serrated' apex of aedeagus.

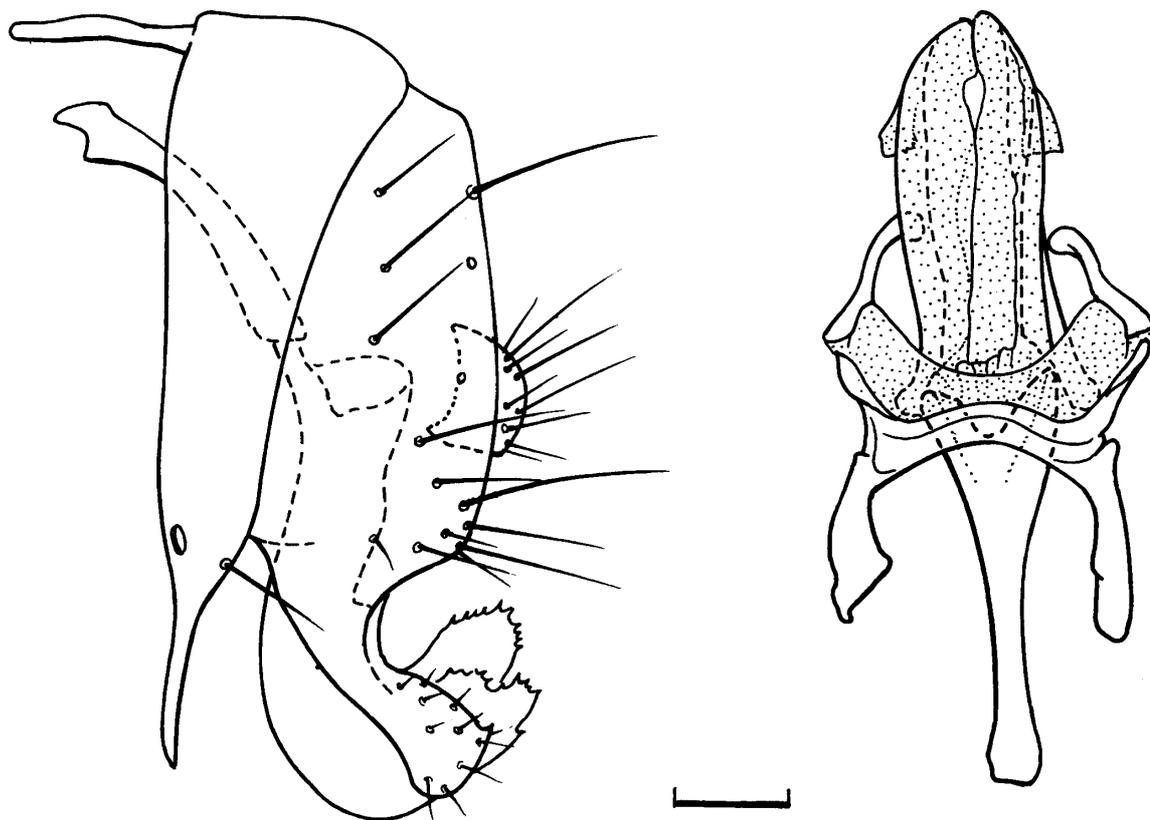


Fig. 9. Male genitalia of *Homoneura (H.) serrata* sp. nov. (holotype).

31. *Homoneura (Homoneura) signata* (van der Wulp)

Minettia signata van der Wulp. 1881: 52 (sex?, Sumatra).

See Sasakawa, 1992, p. 198.

Specimens examined. 1 ♂, Ban Van Eue, 15. II. 1966, Malaise trap; 1 ♀, Muong Sing, NW. of Luang Prabang (650 m), 6-10. VI. 1960, L. Quate; 1 ♂, Paksong, Sedone Prov., 16. VII. 1965; 2 ♀, Vientiane, 28-29. VII. 1965; 2 ♂, Paksane, Borikhane Prov., 31. VIII. & 28. IX. 1965; 1 ♀, Dong Dok, 7.IX. 1965; 4 ♀, Ban Van Eue, 15. X. 1967, light trap.

Distribution. Sumatra, Borneo, Malaya, Thai, Cambodia, Laos, Viet Nam, Philippines. New to Laos.

32. *Homoneura (Homoneura) striatifrons* (de Meijere)

Lauxania striatifrons de Meijere, 1924: 52 (sex?, Java).

See Sasakawa and Ikeuchi, 1982, p. 480.

Specimens examined. LAOS: 1 ♂ 1 ♀, Ban Van Eue, 31. XII. 1968. THAI: 1 ♀, Chiangmai, Fang, 12-19. IV. 1958, T.C. Maa.

Distribution. Java, Thai, Laos, Viet Nam, Formosa, Japan. New to Laos and Thai.

33. *Homoneura (Homoneura) strigata* (de Meijere)

Lauxania strigata de Meijere, 1910: 136 (sex?, Java).

See Sasakawa, 1992, p. 201.

Specimen examined. 1 ♂, Pakse, Sedone Prov., 23. V. 1965, Ashlock.

Distribution. Java, Borneo, Malaya, Laos, Viet Nam. New to Laos.

34. *Homoneura (Homoneura) striolata* sp. nov. (Fig. 10)

Diagnosis. This new species is readily recognized by the brown median vitta on scutum and abdominal

tergites, specifically marked wing and distinctive male genitalia, differing from all the known Oriental species.

Male. Testaceous, sparsely grayish dusted; ocellar triangle dark brown; arista brown except for base; scutum with a brown median stripe between two median rows of acr bifurcated indistinctly towards bases of prsc along acr-rows, scutellum yellowish, pleura brown below dorsal level of postpronotal lobe, more darkened ventrally and more densely dusted; T3-6 each with a brown median vitta and darkened along posterior lateral margin; protandrium and epandrium testaceous. Wing hyaline, with anterior margin brown extending to discal cell basally and to about mid-line of cell R_5 laterally but ending at apex of R_{2+3} , and connected with preapical spot on R_{4+5} , clearly fasciated on both sides of brown spot over r-m, extending midway on cell R_3 , large spot around dm-cu and preapical spot on M_1 each connected with anterior dark margin, and the former posteriorly with darkened margin of discal cell; legs testaceous yellow.

Frons slightly wider than long, about 1.3 times as wide as eye, parallel-sided; parafrontalia linearly projecting above eye margin in profile; lower or $3/4$ length of the upper; oc slightly shorter than lower or; eye 1.3 times as high as wide; gena $1/9$ of eye height; antenna with first flagellomere about 1.7 times as long as wide, slightly narrowed apically; arista plumose, with dorsal longest hair slightly shorter than width of first flagellomere.

Scutum with 0+3 dc, eight (-6) rows of acr, prsc shorter than first dc. Wing: C-index 2.7-2.9, r-m beyond middle of discal cell, 4V-index 1.36-1.4, 5V-index 0.12. Legs: f_1 with two long pv and ctenidium of ten

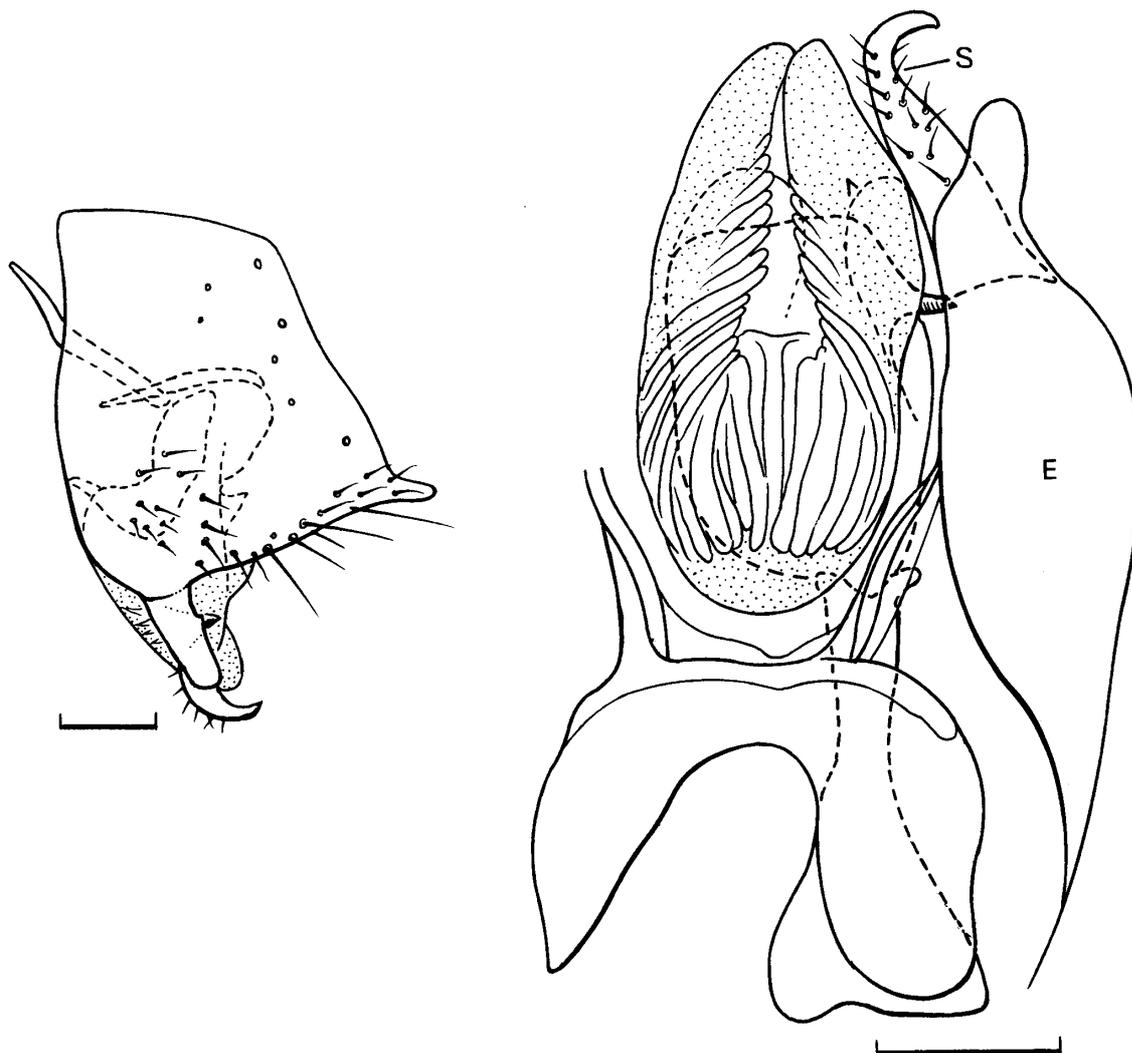


Fig. 10. Male genitalia of *Homoneura (H.) striolata* sp. nov. (holotype).

See Fig. 1.

spinulae, f_2 with seven a, t_2 with two long and one short spurs, pd on t_2 stronger than those on other tibiae.

S6 one and a half times as wide as long, with a deep emargination at middle of posterior margin, S4-5 each quadrate, almost 1.5 times as wide as long. Protandrium horseshoe-shaped, narrower than epandrium in dorsal side. Epandrium broadened ventrally, with a short postero-ventral process and a distinct process at antero-ventral corner; surstylus claw-like, setulose; hypandrium H-shaped but weakly sclerotized basally; aedeagus distinctly dark-striated on ventral side.

Body length 3.2 mm, wing length 2.9 mm.

Female. Similar to male, but brown spot on r-m connected with anterior dark margin as in male and spot on anterior extremity of dm-cu separated from preapical spot beyond r-m, apical spot (not preapical one in male) broadly united with anterior margin through apical one on R_{4+5} , but wing margin between apices of R_{2+3} and R_{4+5} more narrowly hyaline as a crescent than in male; body length 3.4 mm, wing length 3.0 mm.

Holotype male, Ban Van Eue, Vientiane Prov., 15. VIII. 1966, native collector (BPBM Type No.16521). Paratype: 1 ♀, same locality as holotype, 14-15. IV. 1965.

Distribution. Laos.

Etymology. The specific name refers to the 'striated' aedeagus.

35. *Homoneura (Homoneura) trypetoptera* (Hendel)

Lauxania (Sapromyza) trypetoptera Hendel, 1908: 27, 47 (sex?, Viet Nam).

See Sasakawa, 1992, p. 207.

Specimens examined. 5 ♀, Ban Van Eue, 15. II. 1957, 15. IV. 1956, 15. X. 1967 & 15. XI. 1966; 1 ♀, Muong Sing, 6-10. VI. 1960, Quate; 22 ♂ 30 ♀, Ban Van Eue, 30. XI. 1965; 2 ♂ 2 ♀, Ban Van Eue, 15. XII. 1965; 1 ♂, Paksong, 15. XII. 1965.

Distribution. Java, Sumatra, Borneo, Krakatau, Lombok, Malaya, Thai, Laos, Viet Nam, Philippines, Formosa, India, Ceylon, Nepal. New to Laos.

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* See references in the previous papers, Part 1(1998)-3(2002).