Oriental Lauxaniidae (Diptera) Part 5. Fauna of the Philippines, with descriptions of two new genera and seven new species

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Abstract : This paper presents some genera and species of the Philippine lauxaniid flies. Two new genera, *Empagataomyia* (type-species: *E. platyceraia* sp. nov.) and *Paramaquilingia* (type-species: *P. asymmetrocerca* sp. nov.) of the subfamily Lauxaniinae, four new species of the genus *Sapromyza* Fallén: *alcimoposthia*, *pansa*, *parallela* and *philippinensis*, and three new species of the genus *Homoneura* van der Wulp: *dilobophora*, *sexseta* and *torrevillasi*, are described, making total now known in the Philippines 108. A key to the Oriental species of *Sapromyza*, and the faunistic account in the Philippines are given.

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Key words : Diptera, Lauxaniidae, Philippines, new genera, new species.

Introduction

The Philippine lauxaniid fauna with a high endemicity was investigated mainly by Frey (1927, 1958) and Malloch (1929). In this paper some more species: two of new genera, four of the genus *Sapromyza* Fallén, 1810, and three of the genus *Homoneura* van der Wulp, 1891, are described as new to the fauna. The faunistic account in the Philippines and a key to the Oriental species of *Sapromyza* are given. The 108 species of 30 genera are known to occur in the Philippines at present, representing the greatest species diversity in the Oriental Region.

Materials and Methods

Materials are dried specimens which were collected by H. M. Torrevillas and H. E. Milliron, of the Bernice P. Bishop Museum, and D. E. Hardy of the University of Hawaii, in 1958-68. The terminology and abbreviations follow the previous papers of this series.

The holotypes of new species are deposited in the Diptera collection of the Bishop Museum (BPBM), Honolulu, Hawaii, U.S.A.

Descriptions

Subfamily Lauxaniinae

Two new genera: *Empagataomyia* and *Paramaquilingia*, are described below. The former differs distinctly from the genus *Rhagadolyra* Hendel in the shape of the first antennal flagellomere, and the latter from the genus *Maquilingia* Malloch in number of the dorso-central bristles.

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Genus *Empagataomyia* gen. nov.

Type species. *Empagataomyia platyceraia* sp. nov.

Diagnosis. A small species with wing length 3.5 mm; body brown to black, wing brownish anteriorly, legs yellowish. Head higher than long, with distinct fronto-facial angle (about 90°) in profile; frons sparsely setulose on ventral part; or reclinate: occiput convex; face slightly concave dorsally but distinctly protruded beyond parafacialia on ventral half in profile; antenna with scape subequal to pedicel in length, first flagellomere extremely large, almost quadrate in outline. Mesoscutum with 0+3 dc, six rows of acr, strong ph; ia and prsc lacking; propleural bristle present; stpl two. Costa with black spinulae ending just before midpoint of distance between apices of R_{2+3} and R_{4+5}. Tibiae with short pd; mid tibia with one spur. Male genitalia: protandrium asymmetric, only right tergite connected ventrally with sternite; epandrium with extremely long surstylus; hypandrium circular in outline, pregonite with several apical spines; aedeagus with lateral sclerites narrowed distally.

Remarks. The new genus is unique in the shapes of first antennal flagellomere and surstylus among the known world genera. In Stuckenberg's key to the Old World genera (1971), it runs to Australian genus *Rhagadolyra* Hendel, 1907, in general appearance. However, the frons is mat, not shining except for the vertex, and the antenna is not elongate; in *Rhagadolyra*, the frons is entirely shiny, the first antennal flagellomere is about six times as long as wide and 3 – 4 times length of pedicel which is almost as long as scape.

Etymology. The generic name refers to the type locality.

Empagataomyia platyceraia sp. nov.

(Figs. 1 – 4)

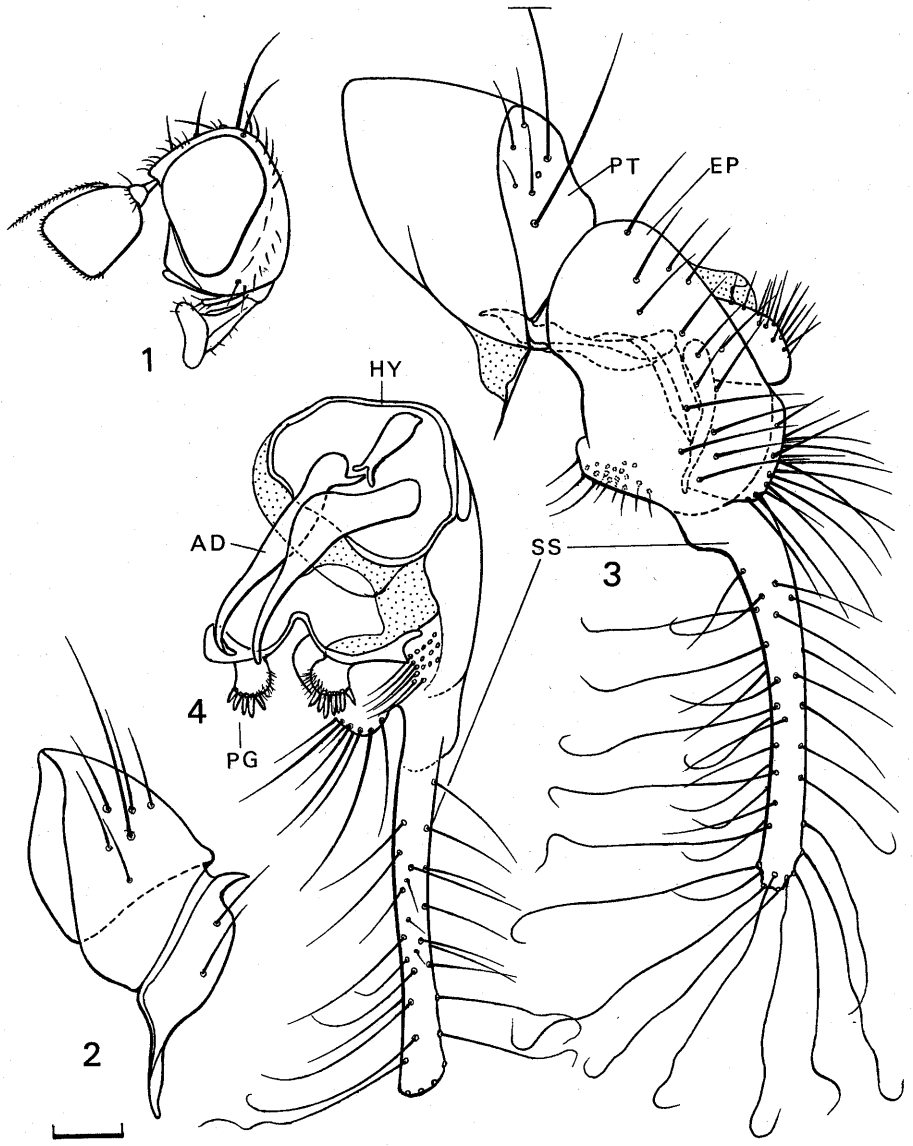
Type series. Holotype male (BPBM 16910), Mt. Empagatao, 1050-1200 m, Misamis Oriental, Mindanao, Philippines, 19 – 30 April 1961, coll. H. M. Torrevillas.

Description. Male: Head brown, slightly dusted with gray; frons mat, vertex shiny; orbital plate slightly whitish pollinose, weakly shining; ocellar triangle and occiput dark brown; face, parafacialia, gena, clypeus and palpus brownish yellow; face with whitish pruinescence densely on dorsal half; antenna with scape and pedicel pale brown, first flagellomere brown, distinctly darkened marginally; arista dark brown. Thorax brown, weakly shiny, very sparsely grayish-dusted; mesoscutum darkened centrally and laterally just above sa-line, with a pair of blackish circular spots mesad of ph-base; scutellum entirely brown; postpronotal lobe, notopleuron and pleura pale brown. Wing hyaline, tinged with brown, especially darkened anteriorly between costa and R_{4+5}; veins brown; calypter gray, with margin and fringe yellowish brown; halter yellowish brown. Legs brownish yellow. Abdomen shiny brownish-black, T1 and T2 brown on lateral sides; sternites yellow; epandrium brown, surstylus pale brown but distal long process yellow.

Frons about 1.3 times as wide as long, parallel-sided, about twice as wide as eye, projecting above eye in profile, forming with parafacialia a distinct fronto-facial angle just above base of antenna (Fig. 1), with ventral margin shallowly emarginated at middle, bearing setulae sparsely on ventral half; orbital plate diverging ventrally from orbit, with two relatively short, reclinate or, upper or about one-half length of vti, lower or shorter than upper; oh only two between levels of or; oc as long as lower or; occiput convex, vertex rounded, head fitting closely against thorax; eye 1.4 times as high as wide, distinctly narrowing ventrally; gena 1/5 height of eye; face slightly convex on dorsal half but distinctly projecting on ventral part in profile; antenna with scape slightly shorter than pedicel, first flagellomere very large, slightly broadened apically, nearly 3/5 as wide as eye height, with whitish pile; arista shorter than eye height, microscopically pubescent; clypeus protruded prominently in profile; palpus slender, sparsely setulose on tip.

Mesoscutum with 0+3 dc, presutural dc which is about twice as long as acr situated on right dc-row only, first postsutural dc 1/2 length of the third, acr in six irregular rows, ph strong; prsc and ia lacking; anepimeron bare; stpl two. Wing 3.5 mm long; C-index 5.0, r-m at midpoint of Cd, 4V-index 2.0, 5V-index 0.28. Fore femur without ctenidium of spinulae; all tibiae with pd but shorter on t_1 and t_3; mid tibia with one spur.

Protandrium (Figs. 2, 3) asymmetric, right side of tergite higher than the left and scarcely separated from narrow sternite, with two or three long setae on dorsal side. Epandrium (Fig. 3) slightly broadened ventrally, with a



Figs. 1 – 4. Head (1), protandrium (2), and male genitalia (3, 4) of *Empagataomyia platyceraia* sp. nov. 2, right lateral view; 3, left lateral view; 4, hypandrium, pregonite and aedeagus, ventral view. AD, aedeagus; EP, epandrium; HY, hypandrium; PG, pregonite; PT, protandrium; SS, surstylus. Scale for Figs. 2 – 4 =0.1 mm.

patch of 16 or 17 hairs at anterior ventral corner. Surstylus (Figs. 3, 4) divided into basal lobe and extremely long distal process, bearing long setae. Hypandrium (Fig. 4) circular in ventral view, narrowly sclerotized; pregonite with 5 – 7 spines on apex of knob. Aedeagus (Fig. 4) with lateral sclerites 310 – 320 μm long, narrowed distally; aedeagal apodeme 110 μm long.

Body length 3.5 mm.

Female. Unknown.

Distribution. Philippines (Mindanao).

Etymology. The specific name refers to the broad first antennal flagellomere: Greek, *platys*, broad + *keraia*, antenna.

Genus *Paramaquilingia* gen. nov.

Type species. *Paramaquilingia asymmetrocerca* sp. nov.

Diagnosis. A small species with wing length in range 2.3 – 3.0 mm; mainly black, densely whitish gray-dusted; wing hyaline. Head subtriangular in profile; frons slightly wider than long, bearing many proclinate setulae on ventral part; fronto-facial angle slightly acute, projecting cephalad of eye; occiput concave, head fitting closely against thorax; face flat and retreating below, eye elongate oval in horizontal plane as in the genus *Trigonometopus* Macquart; antenna situated at apex of fronto-facial angle, first flagellomere longer than wide, rounded apically, arista pubescent. Mesoscutum with 1+4 dc, six rows of acr, long ph and prsc. Tibiae without pd. Male genitalia: cerci asymmetric; surstylus distinctly projected; distal side-arms of hypandrium, gonites and aedeagus very long.

Remarks. In general appearance this genus closely resembles *Maquilingia* Malloch, 1929, particularly in the form of the head. However, it is differentiated from which in having the four postsutural dc. *Maquilingia hirticeps* Malloch, 1929, type-species of the genus (only female known), has two postsutural dc.

Etymology. This is the nearest genus to *Maquilingia* (Greek: *para*, near).

Paramaquilingia asymmetrocerca sp. nov.

(Figs. 5 – 7)

Type series. Holotype female (BPBM 16911), Buguias, 1800 – 2000 m, 60 km S. of Bontoc, Abatan, Mountain Prov., Luzon, Philippines, 8 May 1964, coll. H. M. Torrevillas. Paratypes: 1 ♂, 1 ♀, same data as holotype except for date: 19 May and 22 – 31 May 1964; sex? (terminalia lost), Mt. Mayon, 900 – 1000 m, 16 km NW of Lagaspi, Albay Prov., Luzon, Philippines, 18 May 1962, coll. Torrevillas.

Description. Female: Black, densely dusted with whitish gray; face brownish between bases of antennae; antenna with scape and pedicel black, gray-dusted, first flagellomere brownish black but brown at inner base, whitish-gray dusted on dorso-basal 2/3; arista yellow, with basal segment slightly brown-tinged; palpus black; abdomen with tergal setae arising from small black spots. Wing hyaline, very faintly tinged with brown; veins brownish yellow; calypter whitish gray, with margin yellow, fringe yellowish white; halter yellow, with stalk darkened. Legs with coxae and femora blackish brown, gray-dusted; trochanters, knees and tibiae of all legs, and tarsi of mid and hind legs brownish yellow, fore tarsus (holotype) brownish black (in paratype female, fore tarsus pale brown except for yellowish brown basitarsomere); each tibia with three brown rings, of which basal one isolated from knee part, and distal one on apex.

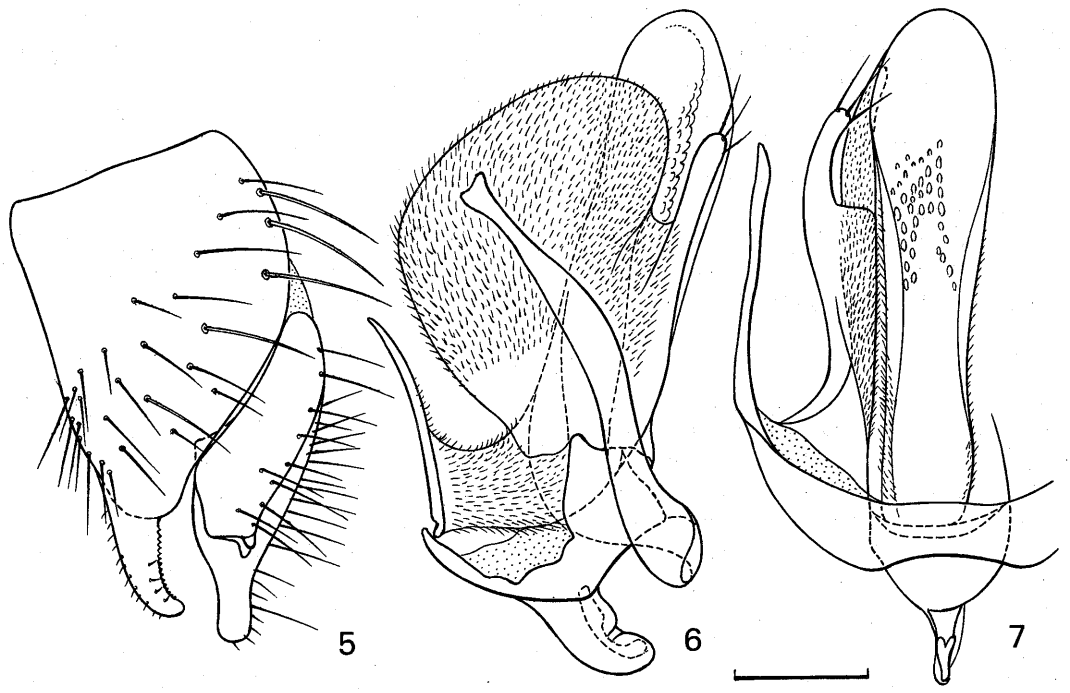
Frons slightly wider than long, parallel-sided, almost twice as wide as eye, with four irregular rows of proclinate setulae transversally on ventral part below level of lower or, of which several ones of lateralmost row distinctly longer than others; or two, subequal in length, lower or situated slightly before middle of frons; oc longer than or; face flat, not keeled, projected anteriorly between antennal bases in subquadrate in dorsal view but narrowed anteriorly and nearly 1/4 length of frons; eye narrowed anteriorly, approximately twice as long as high; gena about 1/3 height of eye; pm three, anteriormost one distinctly longer than others; antennae broadly separated from each other at bases, pedicel with two or three ventro-marginal setae which are about 1/2 length of first flagellomere, first flagellomere about 2.3 times as long as wide, narrowed apically; arista as long as eye length, with whitish pubescence.

Mesoscutum with 1+4 dc, presutural dc as long as second postsutural dc and about 1/2 length of the fourth, first postsutural dc shortest, third dc longer than second; six rows of acr, prsc as long as second dc; h and ph longer than presutural dc; ia lacking; katepisternum with one or two short setae before stpl. Wing 2.3 – 3.0 (3.0 in holotype) mm long; C-index 6.4 – 7.0 (holotype), r-m slightly before midpoint of Cd, 4V-index 2 (holotype) – 2.3, 5V-index 0.3 (holotype). Legs: Fore femur with three or four long pv; mid tibia with one spur.

Body length 2.5 – 3.1 (3.1 in holotype) mm.

Male: Similar to female, but first antennal flagellomere blackish, all tarsi brownish yellow; frons distinctly wider than long, 2.3 times as wide as eye; eye1.5 times as long as high; arista 1.2 times as long as eye length; wing 2.5 mm long, C-index 6.0.

Protandrium about 1/2 length of epandrium on dorsal side, with seven setae along posterior margin; S8 narrow,



Figs. 5 – 7. Male genitalia of *Paramaquilingia asymmetrocerca* sp. nov. 5, epandrium, surstylus and cerci, lateral view; 6 & 7, hypandrium, pre- and postgonites, and aedeagus, lateral (6) and ventral (7) views. Scale=0.1 mm.

connected with protandrium on left side only. Epandrium with surstylus projected, minutely serrated along posterior margin; cerci asymmetric, right cercus longer than the left which is provided with spine-like processes on apex. Hypandrium U-shaped, with side-arms narrow; pregonite long, setulose and with two or three apical setae; postgonite large, membranous and setulose. Aedeagus 390 μ m long, granulated on ventro-distal membranous part; aedeagal apodeme with broad apical plate.

Distribution. Philippines (Luzon).

Etymology. The specific name refers to the asymmetric cercus (Greek: *asymmetros* + *kerkos*).

Genus *Sapromyza* Fallén

This is the second large genus of the lauxaniids in the Oriental Region. However, only nine species including four new species are known to occur in Philippines at present.

Key to Oriental species of *Sapromyza*

1. Mesoscutum with presutural ia bristle between ph and presutural dc (subgenus *Notiosapromyza* Sasakawa)... 2
- Mesoscutum without presutural ia 4
2. Mesoscutum with one or two presutural and three postsutural pairs of long acr on median rows in addition to prsc 3
- Mesoscutum without well-developed acr, only with prsc (Viet Nam) ..... *longimentula* Sasakawa
3. Mesoscutum blackish brown, with a pair of dark median vittae; acr in six rows; femora largely brown (Viet Nam). ..... *pellopleura* Sasakawa
- Mesoscutum brownish yellow, with four brown vittae; acr in two rows; femora brownish yellow, knees narrowly brown (Viet Nam) ..... *quadridentata* Sasakawa

4. Anepisternum with one or two downwardly directed bristles at middle in addition to mspl (subgenus *Xenosapromyza* Malloch) (Java) ..... *cinctipes* (de Meijere)
- Anepisternum setulose at middle, only with mspl 5
5. Oc situated outside of a line joining posterior ocellus and anterior edge of triangle; fore femur with ctenidium of spinules (subgenus *Sapromyzosoma* Lioy) 6
- Oc situated inside of a line joining posterior and anterior ocelli; fore femur usually without ctenidium (subgenus *Sapromyza* Fallén) 7
6. Abdomen entirely black; wing hyaline, faintly brown-tinged (Philippines) ..... *philippinensis* sp. nov.
- Abdominal T4 – 6 centrally with whitish-pruinose yellowish fasciae, T2 – 5 with silvery-whitish pruinose bands posteriorly or laterally; wing slightly infuscated at base and around outer crossvein (Java , Malaya) ..... *albicincta* (de Meijere)
7. Mesoscutum with 0+3 dc 8
- Mesoscutum with 0+2 dc 13
8. Wing with brown costal margin extending to termination of R_{4+5} (Moluccas) ..... *conspicua* Malloch
- Wing entirely hyaline or faintly yellowish- or brown-tinged 9
9. Body black; mesoscutum gray-dusted 10
- Body yellow to yellowish brown; mesoscutum very sparsely dusted 11
10. Arista plumose; fore femur with ctenidium of spinules; abdomen subshiny, sparsely pollinose (Viet Nam) ..... *ctenophora* Sasakawa
- Arista pubescent; fore femur without ctenidium; abdomen shiny (Formosa) ..... *agromyzina* (Kertész)
11. Mesoscutum brownish-vittate centrally 12
- Mesoscutum without vitta; abdominal T5 – 6 each with a pair of brown spots (Formosa) ..... *conjuncta* Sasakawa
12. Mesoscutum with prsc; T2 – 6 with blackish posterior margins, T4 – 6 each with two dark brown spots (Formosa) ..... *terminalis* Sasakawa
- Mesoscutum without prsc; T5 – 6 each with four black spots (Java) ..... *hyalipennis* (de Meijere)
13. Head, thorax and abdomen black 14
- Head yellow to brownish yellow; thorax and abdomen either yellowish or blackish 16
14. Mesoscutum with a pair of long postsutural acr in six sparse rows; first antennal flagellomere brownish yellow, distinctly darkened dorsally and apically (Viet Nam) ..... *acrostichalis* Sasakawa
- Mesoscutum without well-developed pair in 6 – 10 rows of acr 15
15. First antennal flagellomere yellow on basal half; mesoscutum yellowish-brown dusted, with 8 – 10 rows of acr; abdomen sparsely brownish-dusted (Formosa) ..... *fasciatifrons* (Kertész)
- First flagellomere brown, narrowly yellowish along dorso-basal margin; mesoscutum gray dusted, with six rows of acr; abdomen whitish gray-dusted, tergites with two or four series of black spots (Philippines, Sumatra, Borneo, Malaya) ..... *quadrangulata* (de Meijere)
16. Thorax blackish brown to black 17
- Thorax yellow to brownish yellow 22
17. Abdomen blackish brown to black 18
- Abdomen brownish yellow to yellowish brown 20
18. Mesoscutum with yellow-dusted central stripe extending to scutellum, prsc lacking; first antennal flagellomere yellow ("Orient") ..... *annulifera* Malloch
- Mesoscutum gray-dusted, with prsc; first flagellomere bicolored 19
19. Thoracic pleura entirely yellow; mesoscutum with six rows of acr; first antennal flagellomere dark brownish-yellow, darkened at extreme base (Formosa, Ryukyus) ..... *flavopleura* Malloch
- Thoracic pleura brownish yellow, with brown vittae on anepisternum and katepisternum, respectively; mesoscutum with four rows of acr; first flagellomere black on apical two-thirds (Philippines) ..... *pansa* sp. nov.
20. Wing white basad of brown fascia running obliquely between termination of Rs and crossvein r-m, and faintly clouded on distal part; face whitish, with brown transverse band at middle; abdomen brownish yellow except for T3 – 4 brown (Malaya) ..... *albibasis* Sasakawa
- Wing hyaline or faintly yellowish-tinged; face entirely yellowish; abdominal tergites darkened anteriorly or posteriorly 21

21. Abdominal tergites largely darkened at bases; mesoscutum with ten rows of acr and strong prsc; first antennal flagellomere black, with apical one-third yellow (Philippines) ..... *inversa* Malloch
- Abdominal tergites each with black posterior band broadened in center; mesoscutum with four rows of acr, without prsc; first flagellomere entirely yellow (Formosa) ..... *pollinifrons* Malloch
22. Abdomen brown to brownish black 23
- Abdomen yellow to brownish yellow 24
23. Mesoscutum with six pale brown vittae; anepisternum and katepisternum each with pale brown vitta; wing length 2.2 – 2.4 mm (Philippines) ..... *parallela* sp. nov.
- Mesoscutum without vittae, pleura entirely yellow; wing length 1.5 mm (Java, Philippines) ..... *pusillima* (de Meijere)
24. Mesoscutum vittate or spotted 25
- Mesoscutum without vittae or spots 29
25. Mesoscutum vittate 26
- Mesoscutum with six spots at anterior lateral, median sublateral and median posterior parts (Viet Nam, Laos) ..... *sexmaculata* Sasakawa
26. Mesoscutum with five or six brown vittae and strong prsc 27
- Mesoscutum with three black vittae; prsc lacking; katepisternum vittate dorsally; abdominal tergites entirely brownish yellow (Formosa, Philippines) ..... *pleuralis* (Kertész)
27. Mesoscutum with six vittae; anepisternum and katepisternum each with brown vitta; abdominal tergites partly infuscated 28
- Mesoscutum with five vittae; only katepisternum vittate dorsally; abdominal tergites entirely brownish yellow (Viet Nam) ..... *septemnotata* Sasakawa
28. First antennal flagellomere entirely brown; abdominal tergites each with blackish central fascia and lateral bands (Formosa, Ryukyus, Nepal) ..... *zebra* (Kertész)
- First flagellomere yellow but black on apical one-third; abdominal tergites darkened centrally (Philippines) ..... *maquilingensis* Malloch
29. First antennal flagellomere distinctly darkened on tip; abdominal T2 – 6 each with six black spots (Sumatra) ..... *poecilogastra* de Meijere
- First flagellomere entirely brownish yellow; abdominal T2 – 5 each with four spots,T6 with three spots (Philippines) ..... *alcimoposthia* sp. nov.

Sapromyza (Sapromyzosoma) philippinensis sp. nov.

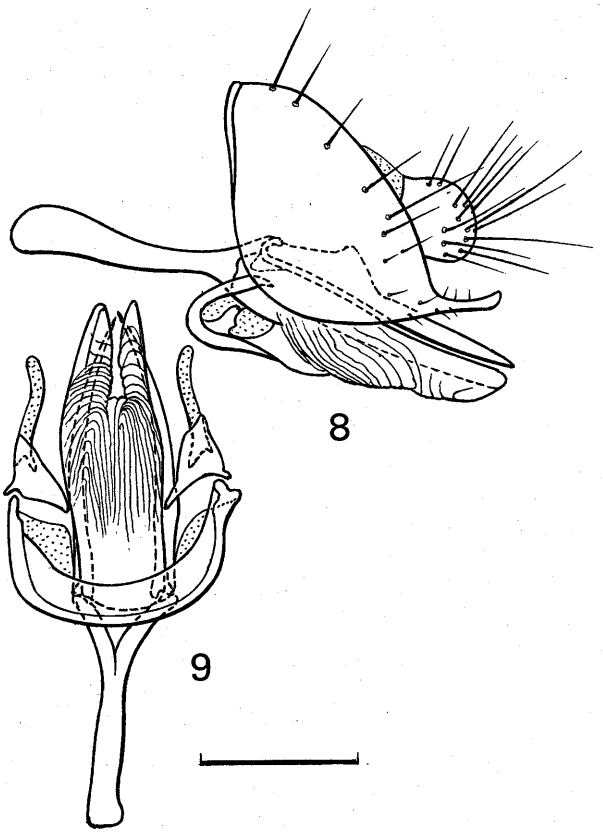
(Figs. 8 – 9)

Type series. Holotype male (BPBM 16912), Ifugao, 1200 – 1500 m, Mayoyao, Mountain Prov., Luzon, Philippines, 25 Aug. 1966, coll. H. N. Torrevillas. Paratypes: 1 ♂, 2 ♀, same locality as holotype, 3 Sept. 1966, Torrevillas.

Diagnosis. This small black species with the clear wing is characterized by having the whitish gray pollinosity on the face, gena and thoracic pleura, and the extremely long postgonite in male genitalia.

Description. Male: Black; head with frons gray-dusted, frontalia yellow to reddish brown on ventral half; orbit, parafacialia, face, and gena whitish-gray dusted; antenna with scape and pedicel dark brown, first flagellomere brownish yellow but browned narrowly on dorsal side and broadly on apex, arista brown; palpus black; mesoscutum and scutellum mat, gray-dusted but whitish-gray dusted on lateral side of notum and pleura; abdomen sparsely dusted; epandrium black. Wing hyaline, faintly brown-tinged; veins brown; calypter gray, with margin yellow and fringe whitish. Legs with coxae yellowish brown, femora dark brown, trochanters, knees, tibiae, and tarsi brownish yellow.

Frons about 1.5 times as wide as eye, slightly converging ventrally; parafrontalia with ventral half slightly and parafacialia linearly projecting beyond eye in profile; upper or slightly longer than lower; oh one or two, ventrad of upper or; oc equal to or slightly longer than lower or; eye nearly 1.5 times as high as wide; gena 1/7 – 1/8 height of eye; pm five; face flat, with distinct antennal grooves; antennal pedicel with two ventro-apical setae which are as long as or slightly shorter than length of first flagellomere; first flagellomere 1.5 times as long as wide, rounded apically, minutely pilose; arista slightly shorter than eye height, pubescent.



Figs. 8, 9. Male genitalia of *Sapromyza philippinensis* sp. nov. 8, epandrium, surstylus, cercus and aedeagus, lateral view; 9, hypandrium, gonites and aedeagus, ventral view. Scale=0.1 mm.

Mesoscutum with 0+3 dc, first postsutural dc about 1/2 length of third; acr in six rows; prsc and ph each subequl to first dc in length; ia lacking; katepisternum with short seta before stpl. Wing 1.6 – 1.8 (1.8 in holotype) mm; C-index 2.5; r-m at midpoint of Cd; 4V-index 2.3; 5V-index 0.25. Fore femur with ctenidium of minute spinules on anterior ventral margin and three long pv; all tibiae with pd; mid tibia with one spur and one or two short ones.

Protandrium semicircular in posterior view, longer than epandrium in dorsal side. Epandrium small, sparsely setose; surstylus narrow, projecting posteriorly. Hypandrium semicircular, rather broad; pregonite distally tubular and membranous; postgonite as long as aedeagus, well-sclerotized, pointed on tip. Aedeagus with lateral sclerites narrow, ventral membranous part distinctly striated.

Body length 1.9 – 2.1 (2.1 in holotype) mm.

Female. Similar to male, but frons almost parallel-sided; wing length 2.2 – 2.3 mm, C-index 3.0; body length 2.3 – 2.4 mm.

Distribution. Philippines (Luzon).

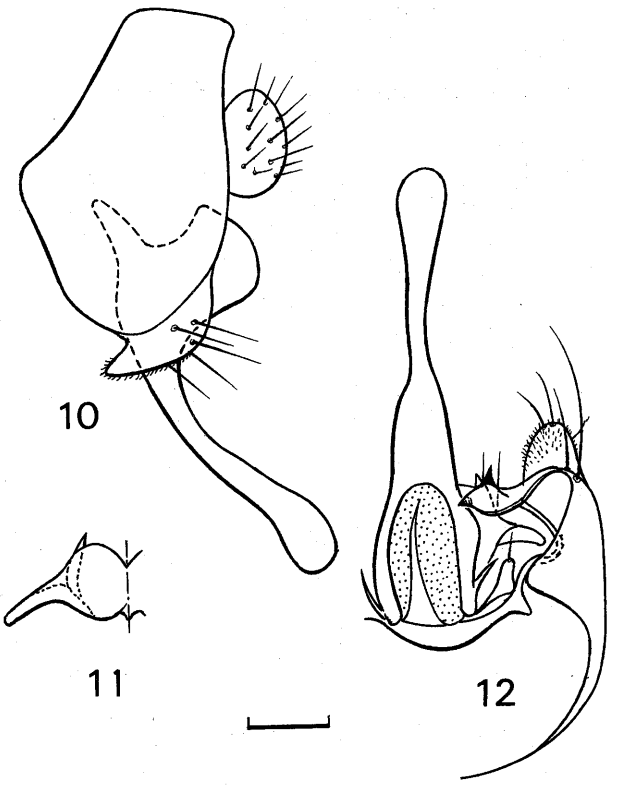
Remarks. This species is closely related to *Sapromyza* (*Sapromyzosoma*) *albicincta* (de Meijere, 1916), **com. nov**., known from Java, in having the three pairs of postsutural dc and the ctenidium on the fore femur. But, it is easily distinguished from which by its entirely black abdomen and hyaline wing (in *albicincta*, the abdominal T3(4) – 6 are provided with the yellowish central line, and the wing is slightly infuscated at base and around outer crossvein).

***Sapromyza (Sapromyza) alcimoposthia* sp. nov.**
(Figs. 10 – 12)

Type series. Holotype male (BPBM 16913), Mt. Montalban, Wa-wa Dam, 150 – 200 m, Rizal Prov., Luzon, Philippines, 26 Feb. 1965, coll. H. M. Torrevillas.

Diagnosis. This small, yellowish species is characterized by the presence of two postsutural dc, and black spots on the abdominal tergites, and by having the black, clavate aedeagus.

Description. Male: Head yellow, whitish gray-dusted; frontalia pale brown except for yellow dorsal and ventral margins, parafrontalia slightly brownish around bases of or; occiput brown, not extending to postorbit; face with pale brown transverse band on ventral one-third; antenna brownish yellow, arista brown; palpus brown. Mesoscutum dark brown, weakly shiny, dusted with whitish gray, with lateral side yellowish below level of of ph and sa-bases, pleura yellow; scutellum yellow, gray-dusted, with a pair of brown vittae which are extended to antero-lateral part, basal sc arising from brown area and apical one from yellow. Wing hyaline, with pale brownish spot between apices of Sc and R_1; veins brownish yellow; calypter yellowish gray, with fringe yellowish. Legs yellow, all knees pale brown. Abdomen yellow, T2 – 5 each with four and T6 with three black, subrectangular spots; epandrium brownish yellow, surstylus yellow; aedeagus black.



Figs. 10 – 12. Male genitalia of *Sapromyza alcimoposthia* sp. nov. 10, epandrium, surstylus, cercus and aedeagus, lateral view; 11, proctiger, ventral view; 12, hypandrium, gonites and aedeagus, ventral view; Scale=0.1 mm.

Frons approximately 1.5 times as wide as eye, almost parallel-sided; parafrontalia slightly projecting above eye in profile; lower or one-half length of the upper; oc longer than lower or; eye 1.3 times as high as wide; gena 1/7

height of eye; pm six or seven, of which two situated above vibrissal angle; face almost flat; first antennal flagellomere slightly longer than wide, rounded apically; arista almost as long as eye height, plumose, with dorso-basal longest hair only a little longer than width of flagellomere.

Mesoscutum with 0+2 dc, four rows of acr, prsc less than one-half of second dc. Wing 2.2 mm long,; C-index 4.0; r-m before midpoint of Cd; 4V-index 2.0; 5V-index 0.38. Legs: fore femur with two long av; fore and mid tibiae with pd, mid tibia with one spur; hind tibia without pd.

Epandrium with surstylus projected anteriorly, densely hairy and sparsely setose; proctiger well-chitinized, with a pair of spines on both latero-ventral ends. Hypandrium narrow transversely; pregonite well-sclerotized, with pointed small processes on tip; postgonite small, with seta. Aedeagus black, very long (570 μm), with keel at base, and clavated on tip.

Body length 2.0 mm.

Female. Unknown.

Distribution. Philippines (Luzon).

Remarks. This species is somewhat similar to *Sapromyza* (*Sapromyza*) *poecilogastra* (de Meijere, 1916), known from Sumatra, in having the plumose arista, the spotted abdominal tergites, and a brownish spot at apex of Sc. The differences between them are shown in the key: 29. Also, it has the densely gray-dusted, dark brown mesoscutum (brownish yellow in *poecilogastra*), and the yellow femora with pale brown knees (brown femora with yellow preapical rings in *poecilogastra*). The stout aedeagus of this species is distinctive.

Etymology. The specific name refers to the stout aedeagus (Greek: *alkimos,* stout +*posthe,* penis).

***Sapromyza* (*Sapromyza*) *inversa* Malloch**

(Figs. 13, 14)

Sapromyza inversa Malloch, 1929: 31.

Specimen examined. 1 ♂, Genitalan, 690 m, 8 km NW of Mt. Apo Davao, Mindanao, Philippines, 17 Aug. 1958, coll. H. E. Milliron in jungle.

Remarks. This species with the characteristically bicolored first antennal flagellomere (black at basal half and yellow apically) was described by a single female (in poor condition) collected on Mt. Maquiling, Luzon. The male examined was quite agreeable to the original description except for the following points: wing 2.3 mm and body 2.5 mm long; mesoscutum shiny black, slightly pollinose, except for lateral and posterior brownish-yellow margins; posteriormost dc and prsc arising from pale area; abdomen yellowish-brown, tergites paler along posterior margins; wing faintly tinged with yellow; all knees brown; dorsal longest hair on arista slightly shorter than width of first flagellomere.

Male genitalia are distinctive as follows: protandrium semicircular in caudal view, almost as long as epandrium; epandrium yellow; surstylus as wide as epandrium, with long setae posteriorly; hypandrium narrow transversely, slightly broadened at both lateral ends; pregonite oval, with two short setae on apex; aedeagus with lateral processes pointed apically, densely setulose on ventral membranous part; aedeagal apodeme Y-shaped, longer than aedeagus.

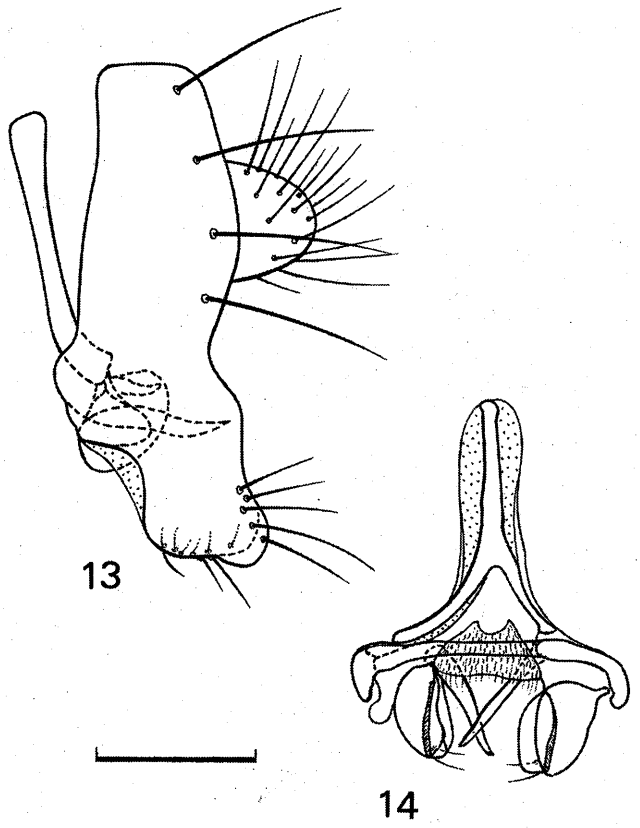
Distribution. Philippines.

***Sapromyza* (*Sapromyza*) *pansa* sp. nov.**

(Figs. 15 – 17)

Type series. Holotype male (BPBM 16914), La Trinidad, Luzon, Philippines, 4 – 5 April 1968, coll. D. E. Hardy. Paratypes: 1 ♀, same data as holotype; 1 ♂, Mt. Isarog, 800 m, Pili, Camarinks Sur, Luzon, Philippines, coll. H. M. Torrevillas.

Diagnosis. This species has the bicolored body, the short-haired arista, the bivittate thoracic pleura, the divergent aedeagal sclerites, and the long postgonite.



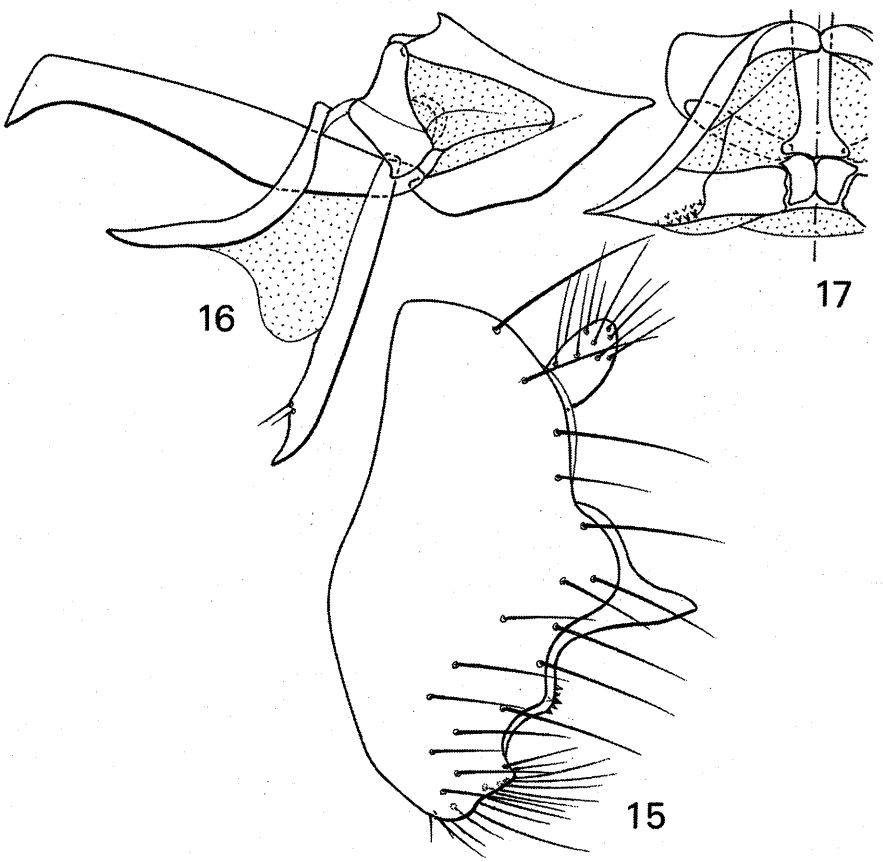
Figs. 13, 14. Male genitalia of *Sapromyza inversa* Malloch. See Figs. 3, 4.

Description. Male: Head pale to yellowish brown but ocellar triangle, dorsal postorbit and occiput black, frontalia with brown, inverse triangular area extending from vertex to its ventral margin, parafrontalia brown; vertical angle, face, and gena gray-dusted; antenna black but first flagellomere yellow on basal one-third, arista brown; palpus black. Thorax with mesoscutum black, densely gray-dusted, obscurely bivittate between dc-rows; scutellum brown basally, yellowish marginally; postpronotal lobe yellow, with pale brown spot dorsally; notopleuron and postnotum brown; pleura brownish yellow; anepisternum with brown median band transversely, extending posteriorly to dorsal part of anepimeron; katepisternum with dorsal margin brown; ana- and katatergite largely and mediotergite entirely brown. Wing hyaline, veins brownish yellow; calypter gray, with margin and fringe pale brown; halter yellow. Legs yellow, slightly brown-tinged; fore leg with femur distally, tibia, and tarsus entirely brown. Abdomen shiny black; epandrium pale to dark brown.

Frons twice as wide as eye, converging ventrally; parafrontalia with ventral part projecting beyond eye in profile; upper or longer than lower; oh two below level of or; oc longer than lower or; eye 1.2 times as high as wide; gena almost 1/5 height of eye; pm five; face flat; first antennal flagellomere slightly longer than wide, rounded apically, with distinct pile; arista slightly longer than eye height, shortly plumose (dorsal longest hair 1/3 – 1/4 as long as width of flagellomere).

Mesoscutum with 0+2 dc, four rows of acr, prsc about one-half length of anterior dc; katepisternum with seta before stpl. Wing 2.3 mm long; C-index 3.0, r-m slightly before midpoint of Cd, 4V-index 2.2, 5V-index 0.25. Legs: fore femur with three av, three pv; all tibiae with short pd; mid tibia with one spur.

Protandrium horseshoe-shaped, as long as epandrium in dorsal side. Epandrium with surstylus slightly incurved, densely setose along distal margin; cercus small. Hypandrium U-shaped; pregonite membranous;



Figs. 15 – 17. Male genitalia of *Sapromyza pansa* sp. nov. 16, hypandrium, gonites and aedeagus, lateral view; 17, distal part of aedeagus, dorsal view. See Figs. 3, 4.

postgonite very long, directed ventrally, with two setae before apex. Aedeagus with sclerites diverging distally, bearing minute spinules at ventral base; aedeagal apodeme longer than aedeagus.

Body length 2.0 mm.

Female. Similar to male, but gena 1/6 height of eye; wing length 2.5 mm, body length 2.1 mm; C-index 3.2, 4V-index 2.3, 5V-index 0.27.

Distribution. Philippines (Luzon).

Remarks. This species is similar to *Sapromyza* (*Sapromyza*) *flavopleura* Malloch, 1927, in the coloration of the body, the length of hairs on the arista, and the presence of prsc on the mesoscutum, but it is distinguishable by its distinctly bicolored first antennal flagellomere, brownish yellow thoracic pleura with brown vittae and sparse rows of acr on the mesoscutum as shown in the key: 19.

Etymology. The specific name refers to the 'spread' (Latin, *pansus*) aedeagal sclerites and postgonites.

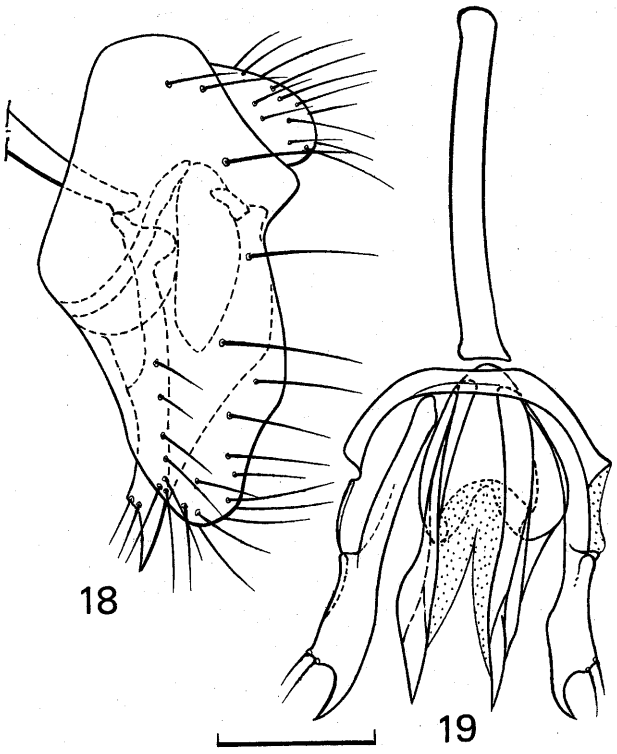
***Sapromyza* (*Sapromyza*) *parallela* sp. nov.**

(Figs. 18, 19)

Type series. Holotype male (BPBM 16915), La Trinidad, Luzon, Philippines, 4 – 5 April 1968, coll. D. E. Hardy. Paratypes: 1 ♀, same data as holotype; 1 ♂, Dalton Pass, Nueva Vizcaya, Luzon, 9 – 10 April 1968, Hardy.

Diagnosis. This yellowish species is characterized by the presence of brownish central stripe on the frontalia, four vittae on the mesoscutum, and two vittae on the thoracic pleura.

Description. Male: Head yellow, frons and dorsal part of occiput slightly or distinctly tinged with brown; ocellar triangle dark brown to black; frons with pale brown central stripe extending from apex of ocellar triangle to its ventral margin; parafrontalia, vertical angle, and postorbit grayish-dusted; antenna with scape yellowish brown, pedicel black, first flagellomere black except for yellow basal one-third, arista pale brown; palpus black. Thorax yellow; mesoscutum slightly brown-tinged, gray-dusted, with six pale brown vittae, of which median pair between dc-rows broad, lateral ones dorsad of lines joining base of ph with that of sa narrow, and lateralmost ones narrowest, extending from postpronotal lobes to ventral margins of notopleura; scutellum slightly brown-tinged anteriorly; anepisternum with pale brown broad band transversely at middle, katepisternum with pale brown, narrow band along dorsal margin. Wing hyaline, veins pale brownish yellow; calypter yellowish gray, with margin and fringe yellowish to pale brown; halter yellow. Legs yellow, fore tibia and tarsus pale brown. Abdomen brownish black, slightly shining; epandrium brown.



Figs. 18, 19. Male genitalia of *Sapromyza parallela* sp. nov. See Figs. 3, 4.

Frons about twice as wide as eye, converging ventrally; upper or longer than lower; oh minute, two just below level of each or-base; oc slightly shorter than upper or; eye slightly higher than broad; gena 1/7 height of eye; pm four; face flat; first antennal flagellomere almost 1.5 times as long as wide, rounded apically and minutely pilose; arista slightly longer than eye height, with pubescence nearly 1/4 as long as width of flagellomere.

Mesoscutum with 0+2 dc, four rows of acr, strong prsc; ia lacking. Wing 2.2 – 2.4 (2.4 in holotype) mm long; C-index 3.0 – 3.6, r-m at midpoint of Cd, 4V-index 2.5 – 2.8, 5V-index 0.32 – 0.35. Legs: Fore femur with three pv; all tibiae with short pd.

Protandrium semicircular in posterior view; epandrium with distinct ventral extension which is setose on outer side, but without distinct surstylus. Hypandrium short U-shaped; pregonite long, ending in spine-like apex

and bearing two setae near apex. Aedeagus as long as pregonite, with lateral sclerites pointed on tips; aedeagal apodeme almost as long as aedeagus.

Body length 2.1 mm.

Female. Similar to male, but abdomen yellowish brown; fore tibia and tarsus paler than those of male; gena 1/8 height of eye; wing 2.5 mm long, C-index 4.0, 4V-index 2.4, 5V-index 0.4.

Distribution. Philippines (Luzon).

Remarks. This species somewhat resembles *Sapromyza* (*Sapromyza*) *pusillima* (de Meijere, 1914) in general appearance, but it differs distinctly from which in the characters given in the key: 23. Also, it is similar to *Sapromyza* (*Sapromyza*) *zebra* (Kertész, 1913) and *S.* (*S.*) *maquilingensis* Malloch. 1929, in having the brownish- vittate thorax, but their abdomens are quite different from each another in coloration.

Etymology. The specific name refers to the parallel-sided situation of aedeagus and pregonites (Latin, *parallelus*).

Sapromyza (*Sapromyza*) *pusillima* (de Meijere)

Lauxania (*Minettia*) *pusillima* de Meijere, 1914: 228.
Sapromyza (*Sapromyza*) *pusillima*: Malloch, 1928: 30.

Specimens examined. 1 ♂, Caguscos, 200 m, Libon, Albay Province, Luzon, Philippines, 9 May 1965, Torrevillas, at light trap; 1 ♀, Mt. View Colleges, 15 km NW of Valencia, Bukidnon, Mindanao, Philippines, 22 – 23 April 1968, Hardy.

Remarks. I have not seen the type-specimen, but two specimens collected in the Philippines were agreeable to the original description given the following specific characters: the small size (wing and body 1.5 mm long in male, respectively), the gray-dusted mesoscutum, the largely yellow scutellum except for brown base, and the bicolored antenna. Although the sex of the type was not stated, I supposed it was a male, judging from the examination of a specimen with same length of the wing and body as in the type. On the other hand, the female is larger, that is, 2.2 mm in wing length and 2.0 in body.

Distribution. Java, Philippines (Luzon, Mindanao; new record).

Subfamily Homoneurinae

Genus *Homoneura* van der Wulp

This is the dominant genus in the Oriental Region, and 51 species have been known to occur in the Philippines.

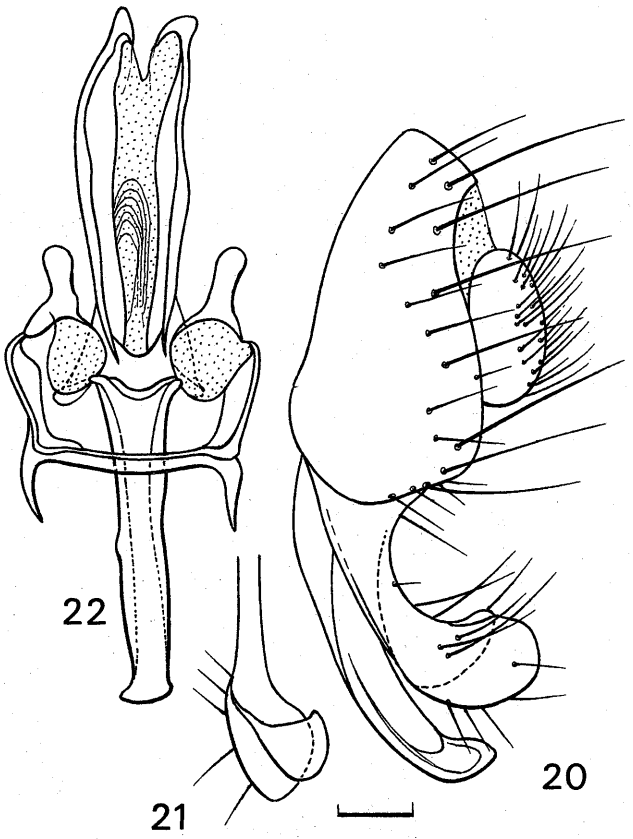
Homoneura (*Homoneura*) *dilobophora* sp. nov.

(Figs. 20 – 22)

Type series. Holotype male (BPBM 16916), Mt. Balatukan, 1000 – 2000 m, 15 km SW of Gingoog, Misamis Oriental, Mindanao, Philippines, 27 – 30 April 1960, coll. H. M. Torrevillas. Paratype: 1 ♀, Zamboanga del Norte, 11 km E of Sindangan, Mindanao, 20 July 1958, coll. H. E. Milliron.

Diagnosis. This large, black species is distinctive in having the plumose arista, the dense rows of acr, and the distinctly bilobate surstylus.

Description. Male: Head with frons blackish brown, grayish dusted, parafrontalia darkened around bases of or, frontalia with ventral margin yellowish narrowly; occiput, face, and gena black, face slightly pollinose; parafacialia pale brown but yellowish brown just laterad of antennal base; oral margin shiny; antenna yellowish brown; palpus black. Thorax black; mesoscutum gray-dusted, mat but slightly shining on lateral side; pleura distinctly shiny. Wing hyaline, faintly tinged with brownish yellow; veins yellowish brown; calypter gray, with margin and fringe pale brown; halter with stalk yellowish but knob black. Legs black but tibiae dark brown, tarsi brownish yellow. Abdomen shiny black; epandrium brownish black.



Figs. 20 – 22. Male genitalia of *Homoneura dilobophora* sp. nov. 21, distal part of surstylus, ventral view. See Figs. 3 – 7.

Frons nearly 1.3 times as wide as eye, converging ventrally; upper or longer than lower; oh three or four below upper or; oc as long as lower or; eye 1.3 times as high as broad; gena narrow, less than 1/15 height of eye; pm five or six; face flat; first antennal flagellomere 1.6 times as long as wide, rounded apically; arista as long as eye height, plumose, with dorsal longest hair distinctly longer then width of flagellomere; palpus setulose ventrally.

Mesoscutum with 0+3 dc, eight rows of acr, prsc slightly shorter than second dc. Wing 4.9 mm long; C-index 3.5, r-m at anterior 1/3 of Cd, 4V-index 1.05, 5V-index 0.16. Legs: Fore femur with ctenidium of spinules and five pv; mid femur with six a; all tibiae with pd; mid tibia with three or four spurs.

Protandrium ringed but V-shaped ventrally in caudal view, with a few setae dorsally. Epandrium narrow, broadened ventrally; surstylus distinctly projected, bilobated distally. Hypandrium H-shaped; pregonite knob-like, postgonite lacking. Aedeagus slightly longer than aedeagal apodeme (500 μm long), sclerotized on lateral sides.

Body length 4.2 mm.

Female. Similar to male, but slightly paler than male; wing 4.1 mm long.

Distribution. Phillipines (Mindanao).

Remarks. This new species resembles *Homoneura* (*Homoneura*) *protuberans* Sasakawa, 2001, known from Viet Nam, in the coloration and chaetotaxy, from which it differs in the wing length (3.8-3.9 mm in *protuberans*) and the hair length on the arista (in *protuberans,* slightly shorter than width of flagellomere), the coloration of halter (entirely yellow in *protuberans*), and the shape of surstylus (minutely trifurcated in *protuberans*). It also differs from *Homoneura* (*H.*) *sexseta* n. sp. in the pollinosity of the frons and mesoscutum, and the absence of the long acr.

Etymology. The specific name refers to the surstylus with two protuberances (Greek, *di*, two +*lobos*, protuberance +*phero*, bear).

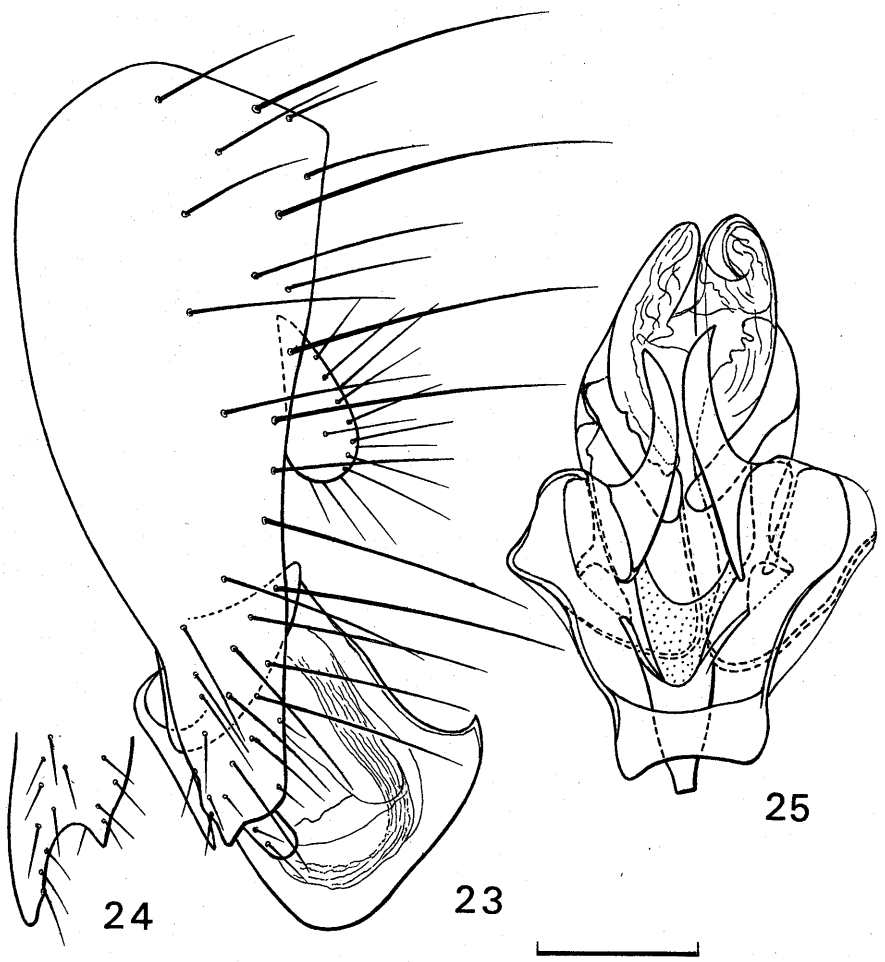
Homoneura (*Homoneura*) *sexseta* sp. nov.

(Figs. 23 – 25)

Type series. Holotype female (BPBM 16917), Trial to Mt. Malindang, 1290 m, Masawan, Zamboanga del Norte, Mindanao, Philippines, 5 July 1958, coll. H. E. Milliron, rain forest. Paratypes: 1 ♂, 1 ♀, Mt. Talinas, 1000 m, Negros Oriental, Luzon, Philippines, 29 – 31 Dec. 1960, coll. H. M. Torrevillas, at light.

Diagnosis. This shiny black species with the clear wing is characterized by having one presutural and two or three postsutural strong acr, the black halter, and the asymmetrically bifurcate surstylus.

Description. Female: Head dark to blackish brown, frontalia with anterior margin pale to yellowish brown, parafrontalia darkened and subshiny, orbit and parafacialia yellowish to pale brown, occiput black, face and gena brownish black; antenna yellow, first flagellomere pale brown except for ventral base; palpus brownish black.



Figs. 23 – 25. Male genitalia of *Homoneura sexseta* sp. nov. 24, distal part of surstylus, anterior view. See Figs. 3 – 7.

Thorax shiny black, postpronotal lobe and notopleuron slightly brown-tinged; mesoscutum slightly grayish-dusted; abdomen shiny black. Wing hyaline, not infuscated at base; veins brownish yellow; calypter gray, with margin and fringe brown; halter black except for pale brown base. Legs brownish black, fore knee yellowish, fore tibia brown, mid and hind tibiae yellowish at bases, all tarsi yellowish brown.

Frons 1.2 times as wide as eye, slightly converging ventrally; upper or 1.3 times as long as lower; oc only a little longer than lower or; oh one, just ventrad of upper or; eye about 1.4 times as high as wide; gena narrow, about 1/10 height of eye; pm short, five or six; face flat; first antennal flagellomere about 1.5 times as long as wide, narrowed and rounded apically, minutely pilose; arista shorter than eye height, plumose, with dorsal longest hair almost as long as width of flagellomere; palpus setulose ventrally.

Mesoscutum with 0+3 dc, acr in six rows before transverse suture but in four behind suture, 1+2 pairs in median two rows strong (presutural one shorter than first dc but postsutural two as long as or slightly longer than first dc); prsc strong, ia lacking; katepisternum with seta before stpl. Wing 4.0 – 4.2 (4.2 in holotype) mm long; C-index 4.2 – 4.5, r-m before midpoint of Cd (15 : 20), 4V-index 1.4 – 1.5, 5V-index 0.11 – 0.13. Legs: Fore femur with ctenidium of spinules and four pv, mid femur with six or seven a; all tibiae with pd, of which mid tibial one stronger than others; mid tibia with three spurs.

Spermathecae two, orbicular, 75 μm in diameter.

Body length 3.2 – 3.5 mm.

Male. Similar to female, but mesoscutum brownish black, pleura dark brown; halter brown; all knees narrowly yellowish, fore tibia yellowish on distal half; number of strong acr on median right row same as in female, but 1+3 on left; wing length 3.6 mm.

Protandrium semicircular, almost as long as epandrium and with three pairs of setae on dorsal side. Epandrium brown, with many long setae posteriorly; surstylus with posterior spine-like process distinctly shorter than anterior process. Hypandrium rectangular at base, with side-arms elongate; pregonite stout, claw-like, strongly chitinized. Aedeagus 250 μm long, pointed on dorsal apex, broadly membranous on ventral side; aedeagal apodeme short, less than half of aedeagal length.

Distribution. Philippines (Luzon, Mindanao).

Remarks. This species is similar to *Homoneura* (*Homoneura*) *signatifrons* (Kertész, 1900) in having the dark coloration and the clear wing, from which it is easily recognized by the presence of strong acr in addition to the normal ones in the median rows.

Etymology. The specific name refers to six bristle-like acr on the mesoscutum (Latin, *sex*, six +*seta*, bristle).

***Homoneura* (*Homoneura*) *signatifrons* (Kertész)**

Sapromyza signatifrons Kertész, 1900: 264.

Homoneura (*H.*) *signatifrons*: Malloch, 1929: 48.

Specimen examined. 1 ♂, Luzon, 29 Sept. 1945, coll. H. E. Milliron.

Remarks. Male genitalia of this black species were described by Sasakawa (2001).

Distribution. Phillipines, Borneo, Viet Nam; New Guinea.

***Homoneura* (*Homoneura*) *torrevillasi* sp. nov.**

(Figs. 26, 27)

Type series. Holotype female (BPBM 16918), Mt. Isarog, 1600 m, Camarines Sur, Luzon, Philippines, 21 – 22 May 1963, coll. H. M. Torrevillas. Paratypes: 2 ♀, same data as holotype; 1 ♂, L. Balinsasayao, Negros Oriental, 1 – 7 Oct. 1959, coll. L. W. Quate; 1 ♂, Mt. Empagatao, 1050 – 1200 m, Misamis Oriental, Mindanao, 19 – 30 April 1961, Torrevillas, rain forest.

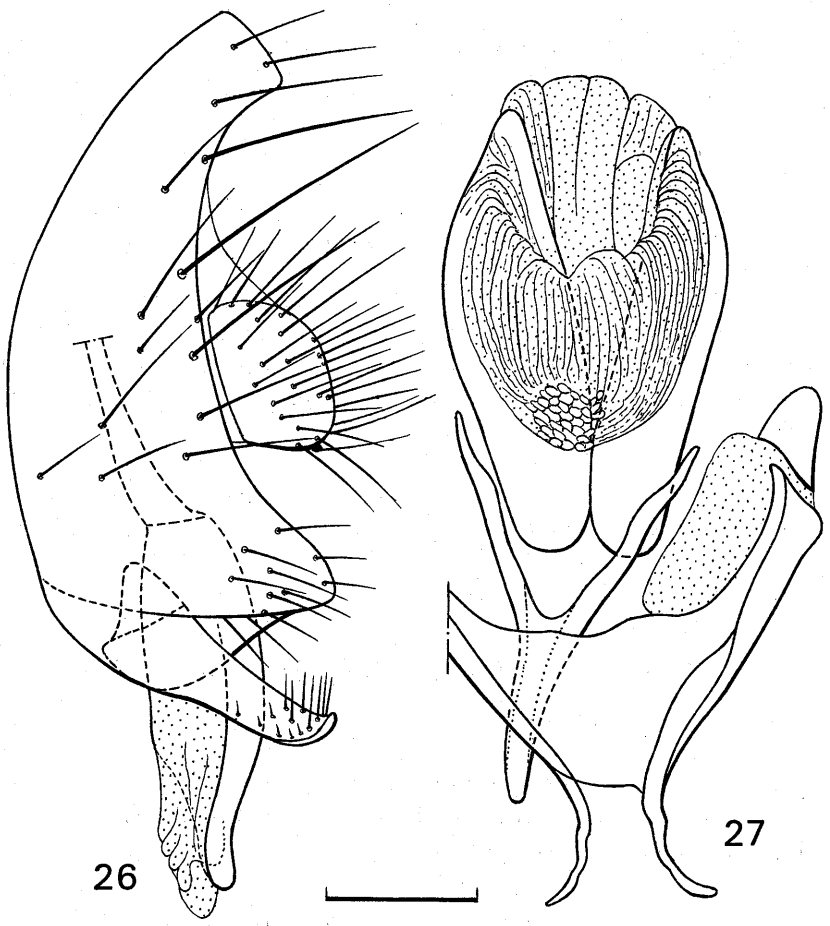
Diagnosis. This black species is characterized by the short oc, the narrow gena, and the curved epandrium in profile, and the V-shaped hypandrium with the basal processes.

Description. Female: Black; frontalia mat, slightly pollinose; parafrontalia, face and ventral postorbit distinctly whitish-gray dusted; oral margin shining; antenna and palpus black; arista brown; thorax sparsely gray-dusted;

mesoscutum and pleura weakly shining; abdomen shining. Wing hyaline, very faintly tinged with brown, slightly infuscated at base; veins yellowish brown; calypter brownish gray, with margin and fringe dark brown; halter black, with knob brown on apex. Legs black, tibiae dark brown, tarsi brownish yellow.

Frons about 1.3 times as wide as eye, almost parallel-sided ventrally; upper or longer than lower; oh one or two; oc slender, about 2/3 length of lower or; eye 1.4 times as high as broad; gena 1/10 – 1/13 height of eye; pm five; face flat; first antennal flagellomere 1.5 times as long as wide, rounded apically, minutely pilose; arista slightly shorter than eye height, plumose, with dorsal longest hair distinctly longer than width of flagellomere.

Mesoscutum with 0+3dc, eight rows of acr, prsc as long as first dc. Wing 3.2 – 3.5 (3.3 in holotype) mm long; C-index 3.5, r-m slightly before midpoint of Cd, 4V-index 1.75, 5V-index 0.18.



Figs. 26 & 27. Male genitalia of *Homoneura torrevillasi* sp. nov. See Figs. 3 – 7.

Body length 3.2 – 3.5 mm.

Male. Similar to female, but wing shorter, 3.0 mm long. Protandrium ringed, with sternite triangular. Genitalia: epandrium narrow but broadened ventrally and protruded posteriorly; surstylus long, produced at anterior ventral corner of epandrium, setose apically; hypandrium V-shaped, broad at base, with slender basal processes; pregonite small, knob-like; aedeagus 300 μm long, sclerotized on lateral sides, with ventral membranous part striated; aedeagal apodeme slightly shorter than aedeagus.

Distribution. Philippines (Luzon, Mindanao).

Remarks. This new species is related to the species of *trispina*-group with the black body and halter, and the infuscated wing base, but the male genitalia of this species, especially the structures of epandrium, hypandrium and surstylus, are distinctive, that is, the epandrium is distinctly broadened ventrally, the hypandrium is provided with the basal processes, and the surstylus is tubular (see genitalia of *folifera* Malloch: Sasakawa, 1992, fig. 20; *trispina* Malloch: Sasakawa, 1992, figs. 20, 38).

Etymology. The specific name is dedicated to the collector, H. M. Torrevillas.

Genus *Noonamyia* Stuckenberg

Systematic position of this genus was discussed by Sasakawa (2005) and a key to the Oriental species was given already (Sasakawa, 1990). Five species of this genus are known to occur in the Philippines.

Noonamyia irregularis (Frey)

Neogeomyza irregularis Frey, 1958: 49.
Noonamyia irregularis: Shewell, 1977: 212.

Specimen examined. 1 ♂, Jacmal Bunhian, 24 km E of Mayovao, 800-1000 m, Ifugao Prov., Luzon, 13 May 1967, H. M. Torrevillas.

Distribution. Philippines.

Noonamyia lyneborgi Stuckenberg

Noonamyia lyneborgi Stuckenberg, 1971: 587.

Specimens examined. 3 ♂, Eran Pt., 8 km SW of Tarumpitao Pt., Palawan, 31 Dec. 1959－4 Jan.1960, L. W. Quate.

Distribution. Philippines.

Faunistic account

The 95 Philippine species of the Lauxaniidae were listed by Shewell (1977) in the Diptera catalog of the Oriental Region. At the present, 108 species belonging to 28 genera of the 48 known Oriental genera are known to occur in Philippine Is. (Stuckenberg, 1971; Shewell, 1977; Sasakawa, 1998, 2001).

Generic diversity is apparently great in the Philippines, as compared with the ones of the other Oriental mainland and islands, such as the 19 genera in Formosa, 17 in Viet Nam, 16 in Java, 14 in Malay Peninsula. Nine genera: *Empagataomyia* Sasakawa n. gen., *Hendelimyza* Frey, 1927, *Himantopyga* Frey, 1927, *Lyperomyia* Frey, 1927, *Paramaquilingia* Sasakawa n. gen., and *Pleurigona* Malloch, 1929, in the subfamily Lauxaniinae, *Caeniamima* Shewell, 1977, *Euprosopomyia* Malloch, 1929, and *Poichilus* Frey, 1927, in the Homoneurinae, are endemic to the Philippines. The occurrence of more Oriental genera such as *Cestrotus* Loew, 1862, *Diplochasma* Knab, 1914, *Parapachycerina* Stuckenberg, 1971, and *Wawu* Evenhuis, 1989, might be expected in the Philippines in the near future.

The fauna of the Philippines is richest in number of the species among the mainland and islands of Oriental Region: Formosa and Malay Peninsula (86 species, respectively), Viet Nam (79), Java (76), Borneo (63), Sumatra and Ryukyus (44, respectively), Laos (36), and Thai (23) (Okadome, 1982; Sasakawa, 1987, 1991, 1992, 1995, 1998, 2001-3; Sasakawa and Tho, 1990; Shewell, 1977). Numbers of the known species in eight dominant genera in the mainland and islands of Oriental Region are shown in Table 1.

Table 1. Eight dominant genera of Lauxaniidae and number of species in Oriental Region

Genus	Philippines	Formosa	Java	Sumatra	Borneo	Malaya	Viet Nam	Laos
Lauxaniinae								
Minettia	2(1)*	9(5)	4(1)	1	1(1)	3(1)	3(1)	
Pachycerina	3(1)	4(2)	5(3)			1	2	1
Sapromyza	4(2)	8(6)	4(2)	2(1)	1	3(1)	8(6)	1
Steganopsis	8(4)	1	2	1			1	
Trigonometopus	2(1)	4(2)	3(2)		1	3	2	1
Homoneurinae								
Homoneura	54(25)	41(18)	43(10)	34(12)	50(12)	60(10)	50(20)	22(4)
Noonamyia	5(5)				4(3)	1	1	
Trypetisoma	2(1)		6(2)	3	1	5		
Total	80(40)	67(33)	67(20)	41(13)	58(16)	76(12)	67(27)	25(4)

* : Number of species within brackets endemic to each country or island.

It seems to be no significant differences among the mainland and islands in number of the species belonging to the above-mentioned eight widespread genera in the Orient, except for the poor-known records were probably caused by the lack of collecting by the specialists in Laos and Sumatra.

It is interesting to note that the percentage of endemic species in the Philippines and Formosa is closely parallel, in the range of 49 – 50 %. On present information, 62 of the 108 species known in the Philippines must be treated as endemic, although some certainly will, in due course, be found elsewhere.

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