

ON EMBLEMASOMINI (DIPTERA, SARCOPHAGIDAE), WITH DESCRIPTIONS OF FOUR NEW SPECIES

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Two new species of Pessomyia from Peru and two species of Emblemasma from Mexico and Costa Rica are proposed; key to species of Emblemasomini is given.

Key words: *Pessomyia peruana* n. sp. – *P. avispaensis* n. sp. – *Emblemasma mexicana* n. sp. – *E. costaricensis* n. sp. – Emblemasomini key

Through the kindness of Dr. Paul Arnaud Jr (California Academy of Sciences), Dr. D. H. Janzen (University of Pennsylvania) and Dr. G. Shewell (Biosystematics Research Institute, Ottawa). I am able to study specimens from Mexico, Costa Rica and Peru belonging to the tribe Emblemasomini.

Three genera were proposed in the Emblemasomini: *Emblemasma* Aldrich (1916: 56, type species, *E. erro* Aldrich); *Pessomyia* Lopes (1938: 333, type species, *P. prosternalis* Lopes) and *Colcondamyia* Reinhard (1963: 82, type species, *C. falcifera* Reinhard).

The species of the tribe share an apomorphic character not found in the other Sarcophagidae, the greatly developed prosternum, present also in the Ormiini (Tachinidae).

A very much conspicuous character, an anterior second row of frontal bristles seems to be present only in some species of *Emblemasma*: the type species (*E. erro* Aldrich), *E. neotropicum* Lopes, *E. albicoma* Reinhard and *E. faciale* Aldrich. Two species now proposed (*E. mexicana* n. sp. and *E. costaricensis* n. sp.) show a single series of frontal bristles. The male genitalia of these species are very similar to the other species of the genus, with elongated ventralia and strongly sclerotized and pigmented lateral plates.

Tarsi of the Emblemasomini show more or less reduced number of spines on ventral side restricted to apex of metatarsi; the series of short spines sometimes, are very far one from another (Fig. 26); in *P. fumipennis* Lopes these spines are almost absent; at the sides of the bare

ventral area and, in addition to the short and stout bristles and spines, there are short (Fig. 32) or long (Fig. 26) hairs.

Pessomyia show spinous reduced ventralia and hyaline lateral plates; *Emblemasma* present long ventralia and pigmented lateral plates. There are also two different shapes of cerci. In all species of both genera in which both sexes are known the females present similar ovipositor. However, there are three species considered as *Pessomyia*, known only from females (*P. fumipennis* Lopes, *P. zikani* Lopes and *P. avispaensis* n. sp.) showing piercing ovipositor. Each species present peculiar characteristics, usually shared by both sexes: smocking wings (*P. fumipennis* Lopes), abdominal bristles reduced (*P. zikani* Lopes) and facial ridges smooth and produced internally (*A. avispaensis* n. sp., Fig. 33). Males of these species shall be obtained for decide if they belong to *Pessomyia*, *Emblemasma* or to a distinct genus.

Behavior of a single species is known, *C. auditrix* Soper, Shewell & Tyrell which deposit its larvae on Cicadidae. The species with similar female genitalia have possibly the same behaviour; however the species with piercing ovipositor shall introduce the larvae into the hosts. The genitalia of *Colcondamyia auditrix* Soper, Shewell & Tyrell represents the third known genus of Emblemasomini. The cerci are very different in shape, being strongly curved but the penis is very similar to the species of *Pessomyia*. The genitalia of the females are very peculiar, with modified fifth sternite, genital sternites fused, last one laterally expanded and eighth tergite represented by a pair of conspicuous plates.

First instar larvae are very variable, including in the structure of clypeal arch which are

absent or membranous (*E. albicoma* Reinhard, *P. fumipennis* Lopes), incomplete (*P. avipaensis* n. sp.) or complete (*C. auditrix* Soper, Shewell & Tyrell, *P. peruana* n. sp.). Abdominal segments with groups of strong spines which are situated dorsally on hind margins (*C. auditrix*), on side (*E. albicoma*, *P. peruana*) or forming plates (*P. avispaensis*).

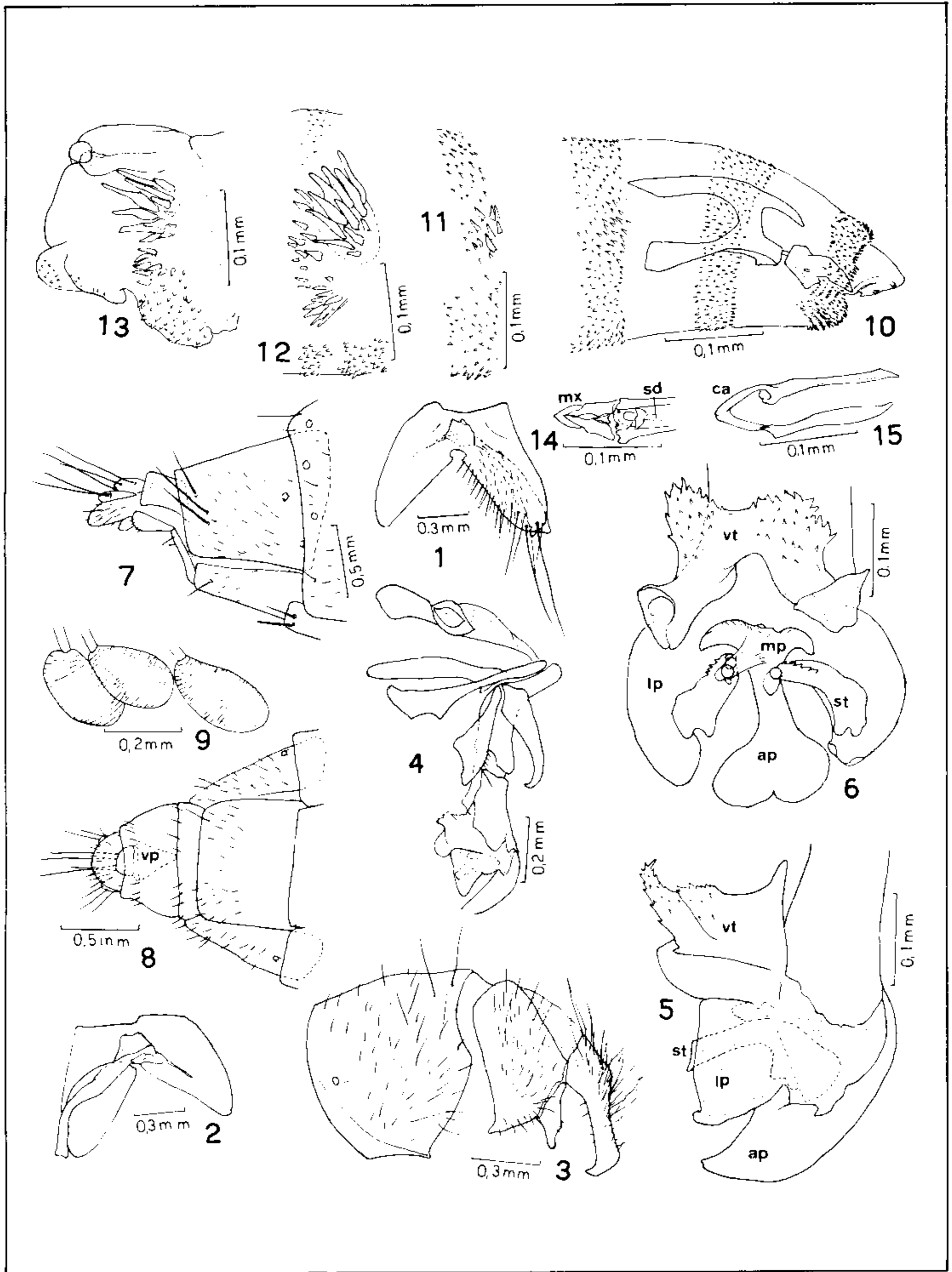
Key to species of Emblemasonini

1. Three post-dorsocentral bristles 2
 - Four or more post-dorsocentrals. 3
2. Preintralar bristle absent; a conspicuous crest of thick golden brown pile interspersed with black hairs on slender apical part of cerci (USA)
 - *Colcondamyia falcifera* Reinhard
 - Two preintralars present; cerci without such crest of pile on apical part of Cerci (Soper, Shewell & Tyrell, 1976, fig. 1) (Canada)
 - *C. auditrix* Soper, Shewell & Tyrell
3. Two rows of frontal bristles anteriorly (Lopes, 1971, figs. 1, 2) 4
 - A single row of frontal bristles (Lopes, 1971, figs. 15, 16) 7
4. Genae clothed with pale hairs, palpi yellow, legs black, only female known (USA)
 - *Emblemasoma albicoma* Reinhard
 - Genae clothed with black hairs. 5
5. Palpi, legs and antennae yellow, only male known (USA)
 - *Emblemasoma faciali* Aldrich
 - At least legs black or brown. 6
6. Apical plate bifid anteriorly (Lopes, 1981, fig. 10) (USA, Brazil)
 - *Emblemasoma erro* Aldrich
 - Apical plate with a single point anteriorly (Lopes, 1971, fig. 5) (Brazil, Goyaz)
 - *Emblemasoma neotropicum* Lopes
7. Wings darkened, only female known, with conspicuous curved piercing ovipositor (Lopes, 1971, fig. 18) (Brazil, Rio de Janeiro) *Pessoamyia fumipennis* Lopes
 - Wings subhyaline. 8
8. Abdominal bristles reduced, at most a pair of small bristles on fifth tergite, only females known 9
 - Abdominal bristles well developed 10
9. Presutural acrostichal bristles present, especially a pair just before the suture, last sternite curved as a piercing ovipositor (Lopes, 1971, fig. 26)
 - *Pessoamyia zikani* Lopes
 - Presutural acrostichals absent, sternites not forming a piercing ovipositor (Brazil)

- *Pessoamyia macropoda* Dodge
- 10. Facial ridges, near reduced vibrissa, smooth and produced internally (fig. 33), only female known, presenting a long, piercing ovipositor (fig. 35) (Peru)
 - *Pessoamyia avispaensis* n. sp.
 - Facial ridges and vibrissae normal 11
- 11. Antennae and palpi red, at most the apex of third antennal segment gray
 - *Emblemasoma costaricensis* n. sp.
 - Antennae and palpi at most reddish brown 12
- 12. Preacrostichal bristles scarcely differentiated (Panama)
 - *Pessoamyia emblemasoma* Dodge
 - Preacrostichals well developed 13
- 13. Apical scutellar bristles strong, ventralia long (fig. 44) (Mexico)
 - *Emblemasoma mexicana* n. sp.
 - Apical scutellars at most slender, ventralia reduced, spinous (fig. 4) 14
- 14. Thorax yellowish gray, more intensely yellow on humeral region; first genital segment with strong marginal bristles (Lopes, 1971, fig. 12) (Brazil)
 - *Pessoamyia prosternalis* Lopes
 - Thorax gray, slightly yellowish on humeral region; first genital segment with long hairs (fig. 3) (Peru) . . *Pessoamyia peruana* n. sp.

Pessoamyia peruana n. sp.
(Figs. 1 to 5)

Male, length: 10 mm. Head light yellow, frontal vitta reddish brown, more intensely reddish anteriorly; back of head yellowish gray; genal grooves brownish red; ocellar triangle brown, pollinose on sides; front about 0.28 of head width; 12-13 frontal bristles, all directed inwards, superior bristle directed somewhat backwards, on right side of the paratype a small proclinate frontorbital bristle; holotype with 10-12 frontals; ocellar bristles scarcely differentiated from ocellar hairs; postvertical pair almost parallel, longer than small frontals; parafacialia and parafacialia with minute sparse hairs; vibrissae moderate, inserted above oral margin about half the length of second antennal segment; back of head with irregular black hairs and some pale hairs around neck; gena with few scattered delicate hairs; facial ridges hairy on inferior third, antenna brownish gray, basal segments reddish brown, reaching about 0.75 of the distance from base to vibrissal level, second segment about 0.6 of third, arista plumose on basal half; parafacialia about 0.81 of the distance between vibrissae.



Pessomyia peruana n. sp., male. Fig. 1: fifth sternite, ventral side. Fig. 2: idem, dorsal side. Fig. 3: genital segments. Fig. 4: phallic organs. Fig. 5: apex of penis, lateral view. Fig. 6: idem, ventral view (ap = apical plate, lp = lateral plate, mp = median process, st = stylus, vt = ventralia). Female. Fig. 7: genital segments, lateral view. Fig. 8: idem, ventral view (vp = vaginal plate). Fig. 9: spermatheca. First instar larva. Fig. 10: anterior end. Fig. 11: first abdominal segment. Fig. 12: second abdominal segment. Fig. 13: posterior end. Fig. 14: cephalopharyngeal skeleton (mx = maxilla, sd = salivary duct). Fig. 15: clypeal arch (ca), dorsal view.

Thorax gray pollinose. 2-3 scarcely differentiated preacrostichal bristles; 3 pairs of post-acrostichals, anterior pair small, median one moderate, posterior pair about the length of preapical scutellar bristles; 4-5 pre-dorso-centrals, only posterior one well developed; 4-5 post-dorsocentrals, only posterior two strong; one preintralar, strong, near humeral callus; 3 postintralars, anterior one small; 2:3 supralars; scutellum with 3 marginal bristles, median one reduced, inserted near posterior; preapical with about the size of median marginal, another discal bristle near marginals, apical pair absent; katepisternum with two bristles, posterior one longer than anterior bristle; meron with 9-10 bristles. Wings with reddish brown veins; R4+5 hairy on basal third to half the distance from base to transverse; costal spine not differentiated. Legs reddish brown front and middle femora, on inferior two thirds of apical half and hind femur on apical third with dark different tegumentar surface bearing, especially on hind femur, a few number of hairs; there are also similar structure but with more reduced area on posterior surfaces of middle and hind femora. This structure is, sometimes, found in other species of the tribe but was never observed so evidently. Middle femur with stout short bristles on apex of ventral side of posterior surface but not forming ctenideum; middle tibia with ventral bristle.

Abdomen, especially the fifth tergite, with yellowish pollinosity; fourth tergite with median marginal bristles; sternites with long sparse dark hairs, fifth sternite with divergent arms, bearing apical long hairs, sixth sternite slender (Figs. 1, 2). Genital segments red, covered with yellow pollinosity, bearing long hairs but no bristles; cerci almost straight, apically curved; surstyli slender with few hairs (Fig. 3); apical plate of penis weakly lobed, lateral plates well pigmented, ventralia strongly spinous, median process of glans not spinous (Figs. 5, 6).

Female, length: 10 mm. Front about 0.29 of head width; 12-13 frontal bristles, ocellar bristles a little larger than small frontals; anterior proclinate frontorbital bristle a little longer than posterior one, both stronger than reclinate bristle; outer vertical bristle large; antenna reaching about 0.78 of the distance from base to vibrissal level, second segment about 0.54 of third; parafacialia about 0.87 of the distance between vibrissae; syntergite VI+VII large, tergite VIII conspicuous; synsternite VI+VII

broad, with about the size of sternite V; sternite VII slender, sternite IX large with preapical small bristles; anal tergite rounded, small, with long hairs; anal sternite broad with short hairs; vaginal plate (vp) triangular; spermathecae finely striated, one of them conspicuously longer than the others (Figs. 7-9).

First instar larvae: length about 1.2 mm; conspicuously flattened dorsoventrally; pseudo-cephalon very small; broad anterior band of compact spines on first thoracic segment (Fig. 10); first abdominal segment with some strong spines on sides (Fig. 11) which become elongated, forming a large plate of spines from second to eighth segments, having ventrally two groups of short spines (Fig. 12); last segment with spinous anal lobes (Fig. 13); maxilla broad, slightly curved, dentate united to base of maxilla; hypopharyngeal sclerite incorporated to pharyngeal phragma; clypeal arch complete (Figs. 14, 15).

Holotype and paratype, males, Quincemil, Cuzco, Peru, 13-31 VIII.62, 780 m, L. Pena; paratype female, Avispas, Madre de Dios, Peru, 10-29.IX.1962, L. Pena, in the collections of Biosystematics Research Institute, Ottawa and "Museu Nacional", Rio de Janeiro.

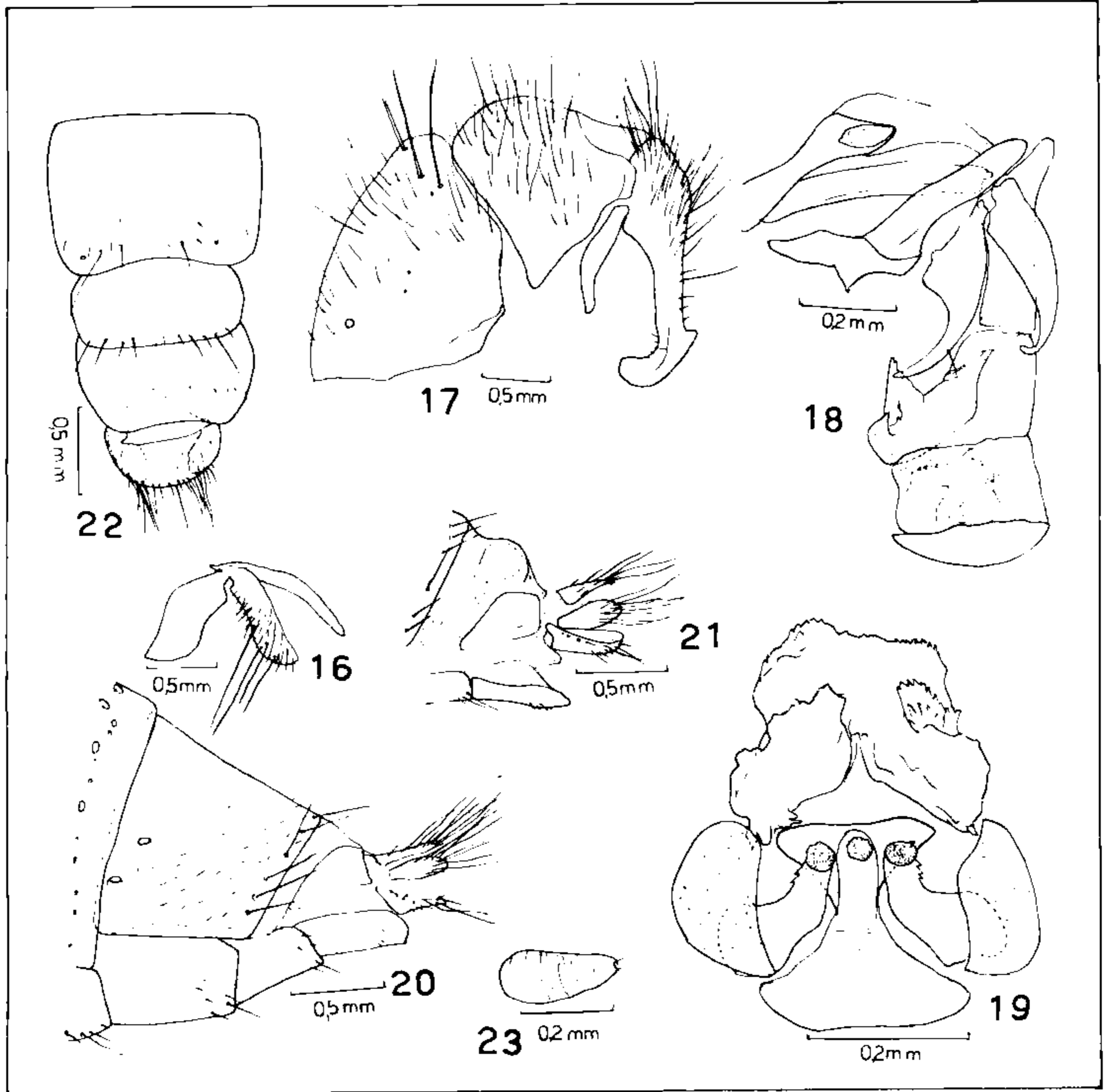
Pessoamyia lutzi Lopes, 1971

(Figs. 16 to 31)

Pessoamyia lutzi Lopes, 1971: 97, figs. 29-32.

Male, length: 12 mm. Differs from *P. peruana* n. sp. as follows: head, including posterior ocular orbits gray, parafacialia and gena yellow; frontal vitta reddish brown; front about 0.2 of head width; 10-11 frontal bristles reaching anteriorly the level of the end of second antennal segment, reclinate frontorbital and ocellar bristle with about the size of small frontals; genal grooves extending below eyes, lighth reddish brown; parafacialia and parafacialia with moderately long, abundant hairs; facial ridges hairy on inferior half; antenna reddish gray, basal segments blackish, reaching about 0.77 of the distance from base to vibrissal level, second segment about 0.47 of third; parafacialia with about 0.77 of the distance between vibrissae.

Thorax with only two post-acrostichal bristles besides the prescutellar; two short and long post-dorsocentrals; three pairs of discal scutellars, apical bristles slender, crossed; katepisternum with three bristles, median one reduced;



Pessomyia lutzi Lopes, male. Fig. 16: fifth sternite. Fig. 17: genital segments. Fig. 18: phallic organs. Fig. 19: apex of penis, ventral view. Female. Fig. 20: genital segments, lateral view. Fig. 21: anal segment, lateral view. Fig. 22: sternites. Fig. 23: spermatheca.

meron with 8-9 bristles; R4+5 hairy on basal half of the distance to crossvein. Legs black, tibiae somewhat reddish, femora without bare regions, middle femur with a series of long bristles not forming ctenideum; ventral side of tarsal segments bare on middle, bearing short stout bristles laterally and fulvous numerous long hairs (Fig. 26); claws long with recurved pointed apices (Fig. 25).

Abdomen with gray, slightly yellowish pollinosity; fourth tergite with almost complete row of marginal bristles; sternites with long hairs, less numerous on fourth sternite; fifth

sternite with long hairs (Fig. 16), genital segments with long hairs first with slender marginal bristles; cerci with broad curved apices; styli slender (Fig. 17), apical plate of penis entire, lateral plate entirely hyaline, ventralia with spinous lobes; styli and median process broad (Figs. 18, 19).

Female, length: 11-12 mm. Four females from Costa Rica (Figs. 20, 21) are very similar to the holotype, differing by the pointed tarsal claws (Figs. 25, 26), the claws of the holotype are blunt, and by the more slender spermatheca (Fig. 23). The genital segments were compared

to that of the holotype and prove to be identical, including the sclerotization of the genital segments, not represented in the original figures (Lopes, 1971: fig. 30). These plates are well visible in the Costa Rica specimens (Figs. 20, 21).

First instar larvae (numerous specimens found in a single female). Length: 1.48-1.74 mm. Body entirely hyaline, including the spines which are brown in the other species. Maxillae moderately curved, broad; dentate entirely incorporated to base of maxilla; hypostomal well separated, long; clypeal arch complete, well pigmented and sclerotized (Figs. 27, 30, 31). Antennae and palpi small, pseudocephalic furrows delicate; first and second thoracic segments with broad band of spines which are stronger on first; anterior margin of third thoracic and abdominal segments with long, hyalin spines on sides, near dorsum; on abdominal segments the ventral spines are small posteriorly and there are groups of strong spines, some of them curved, anteriorly (Fig. 28); eighth segment bearing a pair of conspicuous lobes, ventrally (Fig. 29).

Redescriptions based on male, Serra do Ucurum, Corumbá, Mato Grosso, Brazil, 28.XI.1969, K. Lenko col.; 4 females, Santa Rosa National Park, Guanacaste Prov., Costa Rica, July 1984, 300 m, D. H. Janzen & W. Hallwach. Two females were returned to Dr. Janzen, the remaining in the collection of "Museu Nacional", Rio de Janeiro.

The male from Corumbá was identified to *P. lutzi* Lopes with some doubts, the colour of the head is somewhat different, comparing with the holotype and it is possible that the species represent a new species near *P. lutzi*.

Females from Costa Rica are very similar, including in the details of the genital sclerites; however the claws are pointed and the shape of the spermatheca seems a little different.

Concerning the geographic distribution, the species of *Emblemasomini* present sometimes large distribution; *E. erro* Aldrich, a parasitoid of *Quesada gigas* (O1.) ranges from New York to Rio de Janeiro, following the distribution of its host.

Pessoamyia zikani Lopes, 1971

Pessoamyia zikani Lopes, 1971: 95, figs. 25-28.

Tarsi with short hairs on sides of ventral surface (Fig. 32).

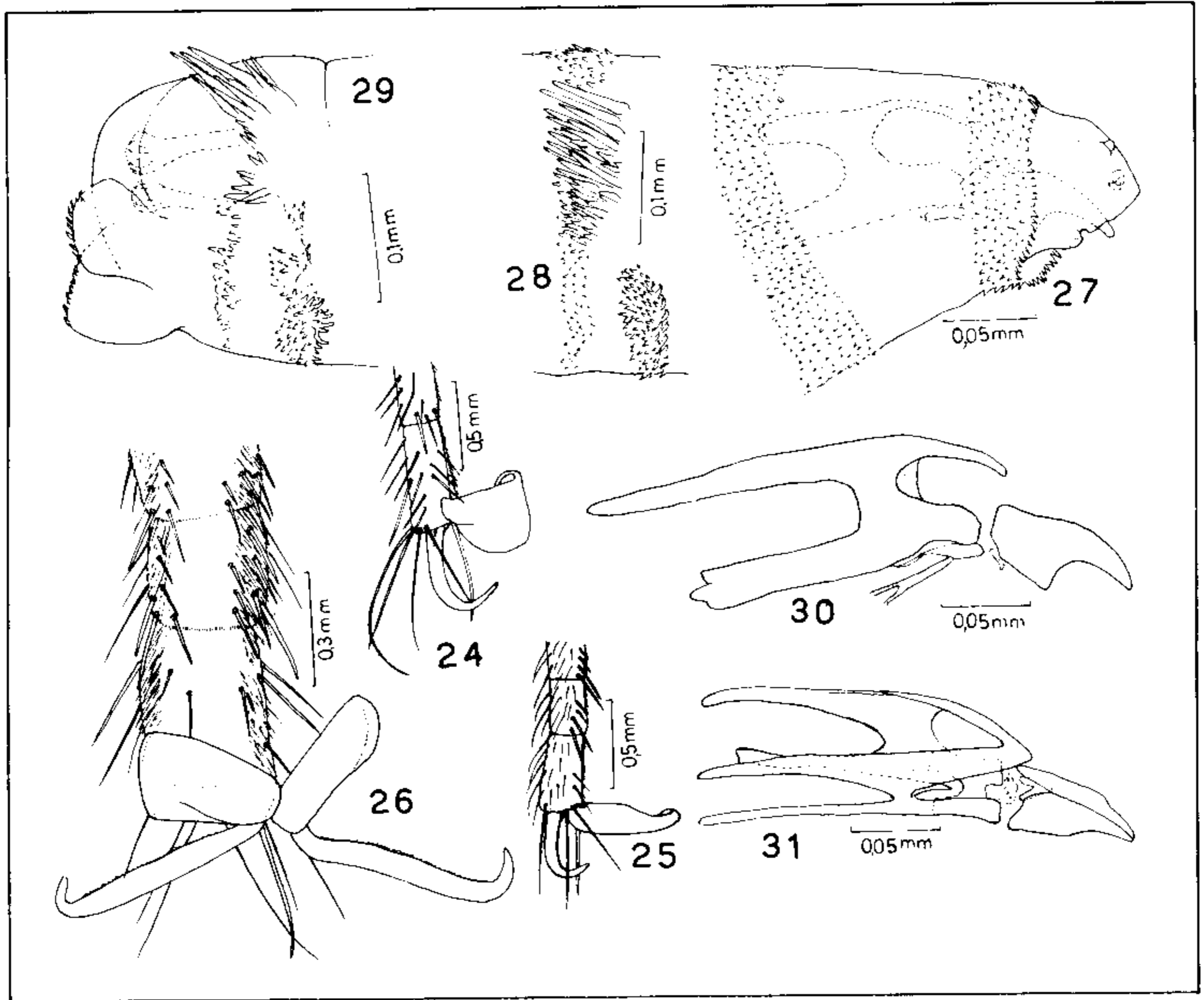
Pessoamyia avispaensis n. sp.

(Figs. 33 to 41)

Female, length: 10 mm. Head, including posterior ocular orbits, intense yellow; frontal vitta dark brown; back of head and posterior part of gena gray; genal grooves red; ocellar triangle dark brown, limited by gray pollinosity; front about 0.31 of head width, 13 small frontal bristles, all directed inwards, anteriorly reaching a little below base of antenna; frontorbital bristles also small, anterior proclinate a little longer than others; outer vertical bristle about half the size of inner one; parafacialia with few slender hairs below; vibrissae small, inserted above oral margin less than half the length of second antennal segment; facial ridges very peculiar, reddish brown in color, broad, smooth internally, especially below (Fig. 33), hairs above vibrissae occupying externally the ridges and few in number, only four; gena anteriorly with minute scattered hairs; antenna reddish gray, more intensely reddish on base of third segment, basal segments reddish brown, reaching about 0.75 of the distance from base to vibrissal level, second segment about 0.75 of third; arista plumose on basal three fourths; parafacialia about 0.66 of the distance between vibrissae.

Thorax yellowish gray pollinose, more intensely yellow on humeral region; 1-2 pairs of poorly differentiated preacrostichals near suture; only prescutellar well differentiated; first two pairs of post-dorsocentral bristles very small; anterior preintralar reduced, having a pair of presuturals scarcely differentiated near suture; 2 post-intralars, anterior one reduced; two pairs of preapical scutellar bristles; apical pair represented by a single moderate bristle; prosternum exceedingly broad; katepisternum with two bristles, anterior one moderately developed. Wings with bright reddish brown veins, R4+5 with few hairs on base; hind femur with almost bare anterior side.

Abdomen with gray, very slightly yellowish pollinosity; median black longitudinal vitta broad on tergites II to IV, slender on V, lateral pairs of dark marks broad, becoming slender on fifth tergite; syntergite VI+VII covered with gray, slightly yellowish pollinosity; median marginal bristles not differentiated on tergite IV; sternites II to IV with scattered long pale hairs and 3-4 slender long black hairs on hind



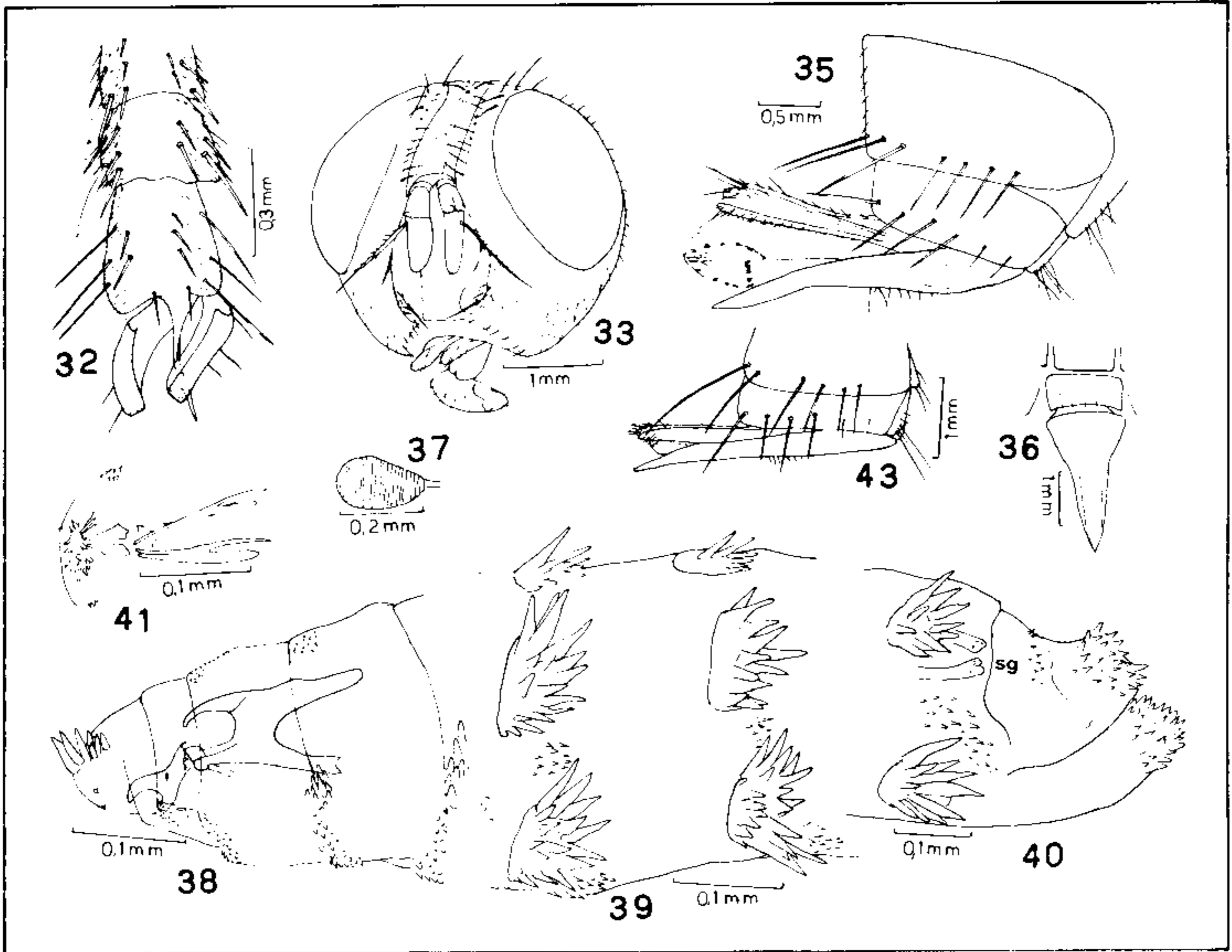
Pessomyia lutzi Lopes, male. Fig. 24: last segments of hind tarsus. Female. Fig. 25: last segments of hind tarsus. Fig. 26: idem, ventral view. First instar larva. Fig. 27: anterior end. Fig. 28: third abdominal segment. Fig. 29: posterior end. Fig. 30: cephalo-pharyngeal skeleton, lateral view. Fig. 31: idem oblique view.

margins; sternite V very much shorter than anterior sternite; synsternite VI+VII reddish brown, covered with gray pollinosity, last sternite reddish brown, very much elongated, pointed at the end, yellow on middle, bearing some hairs, anal tergite and sternite very much elongated and slender (Figs. 34-36); spermatheca finely striated (Fig. 37).

First instar larvae (from the holotype), length: 1.66 mm. Pseudocephalon with small antennae and palpi, bearing a group of strong spines directed dorsally; thoracic segments with ventral small spines, second and third with some dorsal spines; third segment with a group

of lateral strong spines which become stronger on first abdominal segment; second to seventh segments, each with two pairs of lateral spinous plates and a dorsal plate; eighth segment with two pairs of lateral spinous plates and a pair of terminal spinous lobes (Figs. 39, 40). Maxillae short, robust, curved; dentate entirely incorporated to the bases of maxillae; hypopharyngeal united to paraclypeal phragma; clypeal arch incomplete (Fig. 38).

Holotype, female, Avispas, Madre de Dios, Peru, 20-30.IX.1962, L. Pena, 400 m, in the collection of Biosystematics Research Institute, Ottawa.



Pessoamyia zikani Lopes, female holotype. Fig. 32: apex of hind tarsus, ventral view. *Pessoamyia avispaensis* n. sp., female. Fig. 33: head. Fig. 34: ovipositor, dry specimen. Fig. 35: idem, in glycerine, with anterior part of uterine larva. Fig. 36: ovipositor, ventral view. Fig. 37: spermatheca. First instar larva. Fig. 38: anterior end. Fig. 39: sixth and seventh segments. Fig. 40: posterior end. Fig. 41: anterior end, dorsal view.

Emblemasoma mexicana n. sp.

(Figs. 42 to 44)

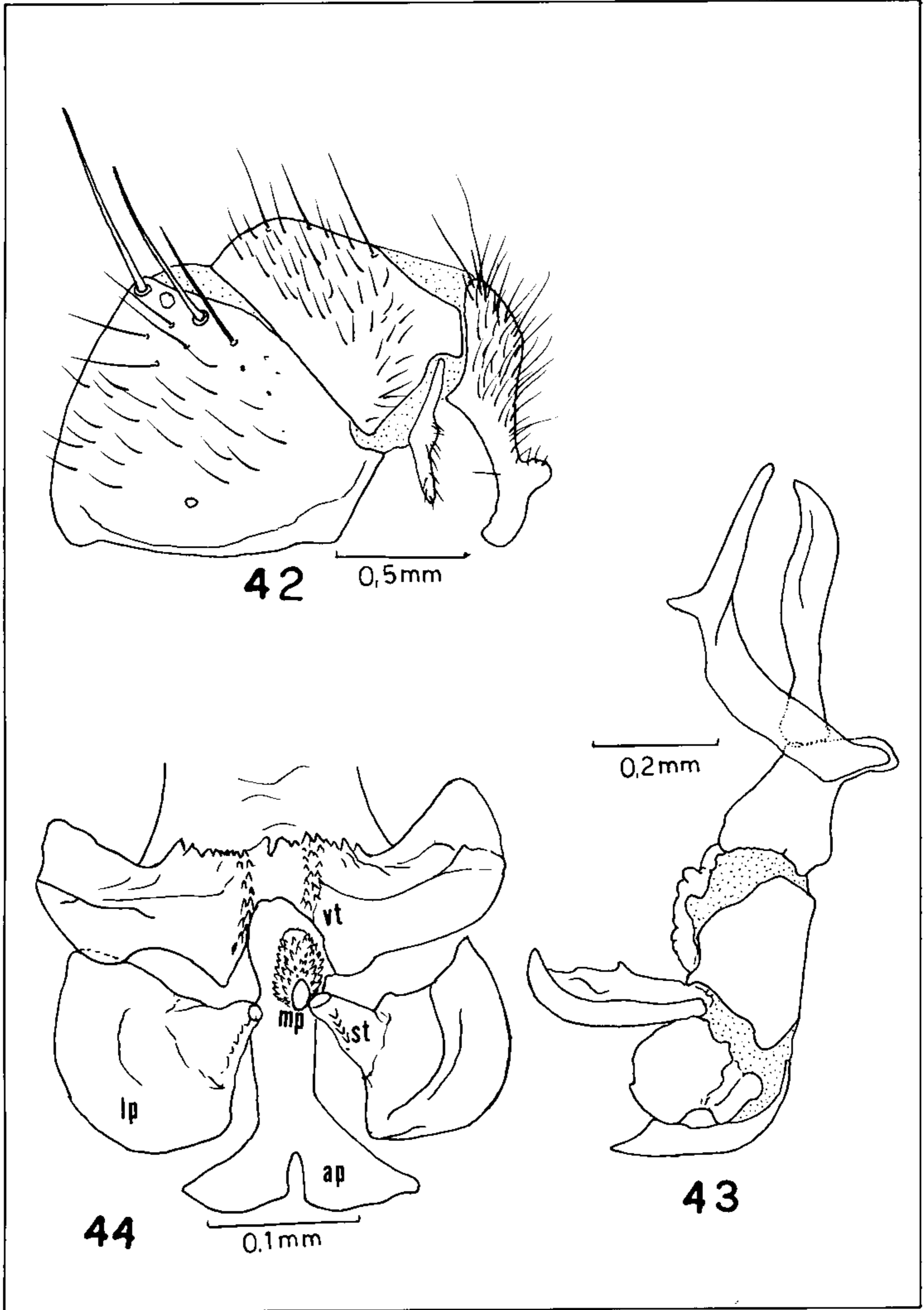
Male, length: 9 mm. Differs from *P. peruana* n. sp. as follows: head gray, slightly yellowish on parafrontalia, frontal vitta dark gray; genal grooves reddish mostly covered with gray pollinosity; front about 0.22 of head width; 9-10 frontal bristles, two inserted below base of antenna; ocellar bristles small; parafacialia with some long irregular hairs below; only few hairs above vibrissa on facial ridges; antennae reddish gray, basal segments darkened, reaching about 0.75 of the distance between base and vibrissal level, second segment about 0.33 of third; parafacialia about 0.93 of the distance between vibrissae.

Thorax with two pre-dorsocentral bristles well developed; two postintralar, a single pair of prapicalis of scutellum, apical bristles long, crossed; katepisternum with three bristles, median one small and inserted near anterior

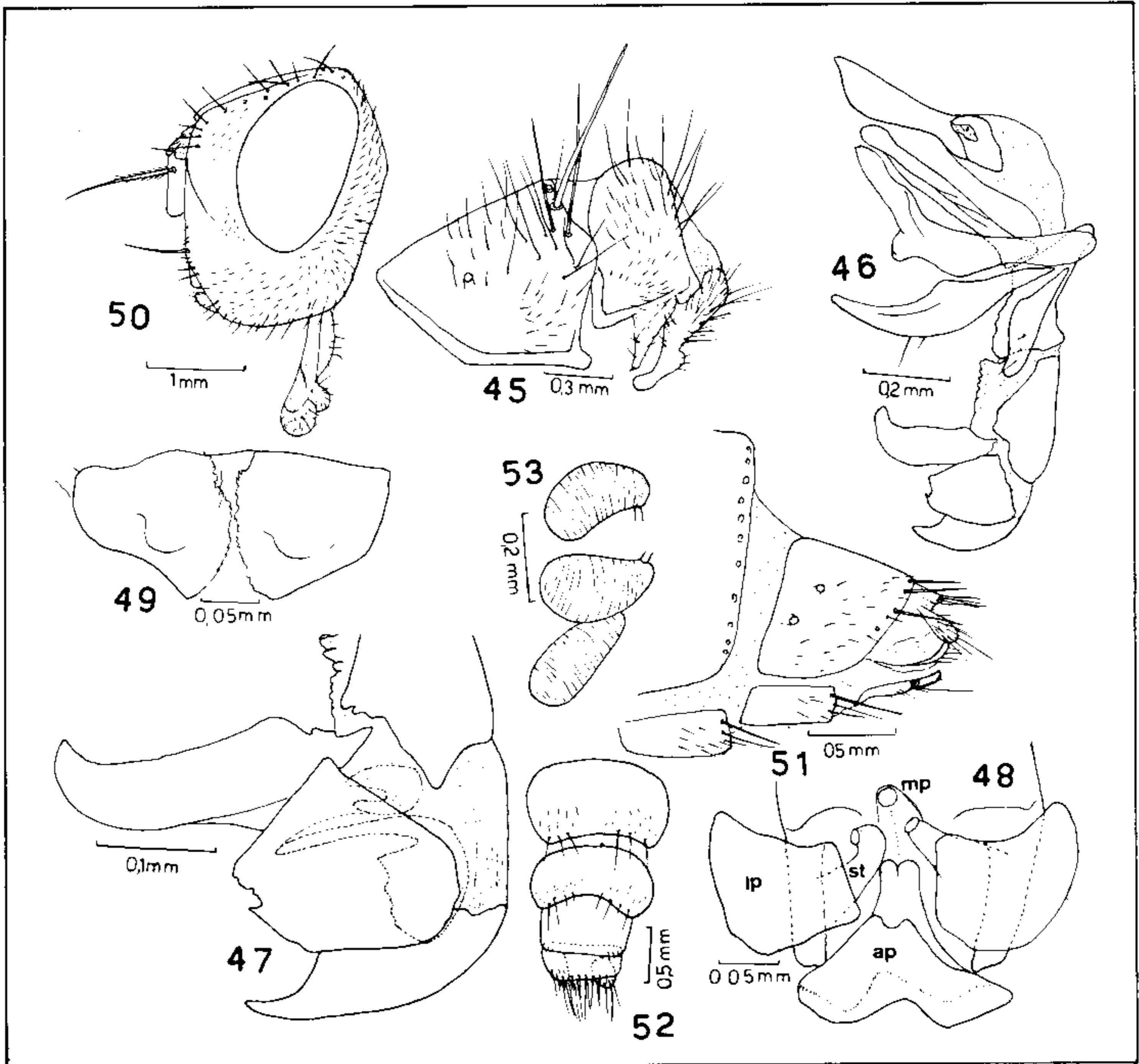
bristle, a little below others; meron with 8-10 bristles; R4+5 hairy on about two thirds of the distance from base to transverse. Only on anterior femur there is a slender ventral apical region without hairs; middle femur with a conspicuous series of about 15 stout bristle bearing sharp, not blunt points.

Abdomen with gray pollinosity which become yellowish on last segment; margin of fifth tergite red; fifth sternite contrasting reddish yellow; fourth sternite almost bare; first genital segment with 3-4 pairs of bristles, second with some long hairs, cerci with posterior preapical projection like the cerci of the species of *Emblemasoma*, surstyli slender (Fig. 42); apical plate with pointed lobes, ventralia elongated with basal internal spines; median process of glans conspicuously spinous (Figs. 43, 44).

Holotype male, Mexico, Baja California, Aguas Calientes (San Carlos), 18.5 km East of Maneadero, 6.VII.1973, Paul Arnaud Jr., in the collection of California Academy of Sciences.



Emblemasma mexicana n. sp., male. Fig. 42: genital segments. Fig. 43: phallic organs. Fig. 44: penis, ventral view (ap = apical plate, lp = lateral plate, mp = median process, st = stylus, vt = ventralia).



Emblemasoma costaricensis n. sp., male. Fig. 45: genital segments. Fig. 46: phallic organs. Fig. 47: penis, lateral view. Fig. 48: idem, ventral view (ap = apical plate, lp = lateral plate, mp = median process, vt = ventralia). Fig. 49: ventralia. Female. Fig. 50: head. Fig. 51: genital segments, lateral view. Fig. 52: genital sternites. Fig. 53: spermathecae.

Emblemasoma costaricensis n. sp.

(Figs. 45 to 53)

Male, length: 10 mm. Differs from *P. peruana* n. sp. as follows: head gray, very slightly yellowish pollinose; frontal vitta reddish gray; ocellar triangle dark brown, limited by gray pollinosity; genal grooves red with scarce gray pollinosity; front about 0.21 of head width; 11 frontal bristles, some hairs anteriorly, two divergent bristles inserted below base of antenna, reclinate frontorbital bristle moderate; ocellar bristles slender but well differentiated; post-vertical long, little divergent; parafacialia with numerous hairs below, about 0.93 of the distance between vibrissae; back of head with

black hairs, long pale hairs below neck; gena with slender black hairs; facial ridges with few small hairs a little more than inferior third; antenna reddish gray, intensely red on base of third segment, basal segments brownish red, reaching about 0.68 of the distance from base to vibrissal level, second segment about 0.57 of third, palpi brownish red.

Thorax with two preintralar bristles, the posterior one near suture, well developed; apical scutellar bristles long, slender, crossed; katepisternum with three bristles, median one small, near anterior bristle, inserted on same level; only anterior femur with bare area, restricted to a small ventral apical band; ctenideum present, with about 9 long spines.

Abdomen gray, slightly yellowish pollinose, mostly of fifth tergite and fifth sternite reddish yellow; hairs of fourth sternite short and sparse; first genital segment with marginal bristles, cerci with dorsal preapical hump; surstyli slender (Fig. 45), apical and lateral plates strongly darkened, ventralia composed of a pair of long curved plates more pigmented and sclerotized externally, with internal dentations, median process not spinous (Figs. 46-49).

Female, length: 8 mm. front about 0.29 of head width; ocellar bristles a little strong than frontals; 9-10 frontal bristles; anterior frontorbital bristle a little longer than posterior one and than reclinate bristle; antenna reaching about 0.73 of the distance from base to vibrissal level, second segment about 0.53 of third; parafacialia about 0.93 of the distance between vibrissae; meron with 8 bristles; abdominal sternites with scattered short hairs and marginal bristles; sternite VI+VII large, genital sternites broad, sternite IX with some small hairs (Figs. 51, 52); spermathecae elongate, one of them a little larger than the others.

Holotype male, paratypes male and two females from Santa Rosa National Park, Guanacaste Province, Costa Rica, D. H. Janzen, 4-14 March 1977, in the collection of "Museu Nacional" Rio de Janeiro. Paratypes returned to Dr. D. H. Janzen.

The females present chaetotaxy like males but are smaller, the front less protruding anteriorly and the colour of the palpi lightly red.

There are some doubts if the females and males belong to the same species.

RESUMO

Sobre Emblemasomini (Diptera, Sarcophagidae) com descrições de quatro espécies novas — Duas espécies de *Pessoamyia* do Peru a duas espécies de *Emblemasoma* do México e de Costa Rica são propostas; é dada uma chave para determinação das espécies de Emblemasomini até agora descritas.

Palavras-chave: *Pessoamyia peruana* n. sp. — *P. avispaensis* n. sp. — *Emblemasoma mexicana* n. sp. — *E. costaricensis* n. sp. — chave Emblemasomini

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