During the course of taxonomic studies of New World phlebotomine sand flies, it was discovered that the female specimen considered to be the female of *Lutzomyia lutziana* does not belong to this species. A new description of the female of *L. lutziana* is presented, based on specimens captured in Lassance, State of Minas Gerais, the type locality of the species. The male of *L. lutziana* is also redescribed, based on an exemplar caught in Curvelo, State of Minas Gerais.

**Key words:** *Lutzomyia lutziana* - Phlebotominae - sand fly - taxonomy - Brazil

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**DESCRIPTION OF MALE**

Figs 3 and 4
(all measurements in mm)

Total length 2995. Head and notum light brown, pleurae and coxae paler than notum.

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**DESCRIPTION OF FEMALE**

Figs 1-3

Allotype: coloration similar to that of male.

**Head:** length 0.255, not including the clypeus of length 0.104. Ratio head/clypeus 2.45:1. Inter-ocular distance 0.086. Labrum length 0.186. Lengths of palpomeres: 1 - 0.028; 2 - 0.079; 3 - 0.121; 4 - 0.069; 5 - 0.190. Palpal formula 1.4.2.3.5. Fifth palpomere equal in length to palpomeres 3 + 4 and shorter than palpomeres 2 + 3 + 4. Newstead’s spines present on palpomere 3. Antennae with ascoids absent on AXIV, AXV and AXVI. Proximal prolongation of ascoids short, not reaching the base of the flagellomere. Distal prolongation long, extending to next flagellomere. External ascoids situated more distally than internal ones on AIII - AXIV. Papillae present on segments AIV, AV, AXIII-AXVI. Length of flagellomere AIII - 0.307; AIV - 0.169; AV - 0.173. AVXV longer than AXVI. Ratio AIII/LE 1.65:1.

Ventral ascoids absent from cercix.

**Thorax:** notum light brown. Pleurae and legs paler than notum. Hind femur longer than fore femur, respective lengths 0.937 and 0.908. Middleg femur lost during the preparation and not mounted. Maximum wing breadth 0.695. Length of principal wing sections: \( \alpha \) (R2) - 0.724; \( \beta \) (R2 +3) - 0.284; \( \gamma \) (R2 + 3 + 4) - 0.270; \( \delta \) (part of R1, extending beyond junction of R2 + R3) - 0.241; R5 - 1.377

**Abdomen:** coxite length 0.366, without tuft of cerdae. Style of length 0.214 and bearing four strong spines, one of them being apical, one intermediate inserted on a process and two inserted on different levels on the basal third of structure. Subterminal setae absent. Paramere simple, broader at base, tapered in the middle and expanded distally, with a distal group of setae present. Lateral lobe extends beyond coxite, length 0.459. Aedeagus large and with a broad tip. Genital pump length 0.159. Genital filaments measuring 0.362, lightly grooved and with simple tips, maximum width 0.004. Ratio genital filaments/genital pump 2.10:1.
Maxilla with a row of external longitudinal teeth. Length of palpomeres: 1 - 0.035 (0.038); 2 - 0.090 (0.086); 3 - 0.128 (0.117); 4 - 0.069 (0.066); 5 - 0.186 (0.186). Palpal formula 1.4.2.3.5. (1.4.2.3.5). Fifth palpomere shorter than 3rd + 4th. Newstead’s spine present on palpomere 3. Ascoids absent on AXV and AXVI, proximal prolongation short and distal prolongation long, extending to next flagellomere. External ascoids situated more distally than internal ones on AIII-AXIV. Papillae present on segments AIV, AV, AXIII-AXVI. Length of flagellomere AIII-0.276 (0.311); AIV-0.145 (0.142); AV-0.145 (0.155). AXV longer than AXVI. Cibarium with four small horizontal teeth and irregular orientation. Vertical teeth arranged on the pigment patch of cibarium. Cibarial arch complete with prominent pigment patch. Pharynx unarmed.

Head of spermathecae barely visible. Individual ducts with a more heavily sclerotized region of length 0.024 (0.028). Individual duct length 0.079. Common ducts length 0.035.

**Collection data and deposition of material:** male collected by R Diniz at Fazenda São Sebastião, municipality of Curvelo, MG, on 16 September 1958, number 6493. Allotype female collected by JD Andrade Filho and RP Brazil at Fazenda São Gonçalo, municipality of Lassance, MG, Brazil, on 8 July 1997, number 75.509, together with one female paratype, number 75.508. All three specimens deposited in the phlebotomine sand fly collection of the Centro de Pesquisas René Rachou-Fiocruz, Belo Horizonte, MG.

**Remarks**

According to Young and Duncan (1994), *L. lutziana* belongs provisionally to the subgenus *Psathyromyia* Barretto. The female described by Floch and Abonnenc,
The shape of the paramere and aedeagus separates the male of *L. lutziana* from those of other species. The appearance of the female spermathecae is also distinctive. The species most similar to *L. lutziana* is *L. campograndensis*, recently described from Campo Grande, Mato Grosso do Sul, Brazil (Oliveira et al. 2001). The males can be separated based on the tips of genital filaments, these being dilated in *L. campograndensis* and 0.010 mm wide, more than twice as broad as those of *L. lutziana* (0.004 mm). The ratio of the lengths of the genital filaments/genital pump can also be used to distinguish the species. In *L. lutziana* this ratio is greater than 2.10, while in *L. campograndensis* it is less than 1.90. The female spermathecae of *L. lutziana* are smaller than those of the other species, and the ratio individual duct/common duct is 2.26 in *L. lutziana* and 1.30 in *L. campograndensis*.

According to the classification of Galati (1995) *L. lutziana* belongs to the genus *Psathyromyia* Barreto 1962, subgenus *Forattiniella* Vargas 1978 and series *lutziana*. In addition to *L. lutziana* and *L. campograndensis*, this series also includes *L. pascalei* (Coutinho & Barretto). This last species can be separate from *L. lutziana* by the longer proximal prolongation of its ascoids and by the appearance of the male terminalia. The female of the two species are easily distinguished based on the forms of the cibarium and spermathecae.

**REFERENCES**


in 1945, is not definitively the female of *L. lutziana*. Although Young and Duncan (1994) showed a female that is more close to the female described by us, they did not give any further information to be included as a formal described female of *L. lutziana*.
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