

Notas & Comunicações

Sand Flies of the Central Amazon of Brazil. 3. Description of *Lutzomyia pennyi* n.sp. (Diptera: Psychodidae) (*)

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Early in 1979 we collected a new male form of phlebotomine sand fly, but did not describe it at the time because it was an only individual and was badly damaged. It wasn't until early this year, two years after the original capture and 100 km west of the original site, that we again found this species: four males were taken (again in a CDC miniature light trap), and it is these that form the basis of the following description.

Lutzomyia pennyi is named after Dr. Norman D. Penny, who has dedicated years of this life to entomological studies in the Amazon.

The terminology follows that of Young (1979). The description is based on the holotype with the ranges of some measurements of four paratypes given in parenthesis. Measurements are in millimeters.

All sand flies are mounted in Berlese solution, each specimen was previously treated with hot KOH for ten minutes and immediately passed to phenol for initial identification. The Berlese preparations were ringed with clear fingernail polish. Figures 1, 2 and 5 were drawn from mounted material while figures 3, 4 and 6 were drawn from a specimen in phenol.

Lutzomyia pennyi Arias & Freitas sp. n.

Fig. 1 - 6

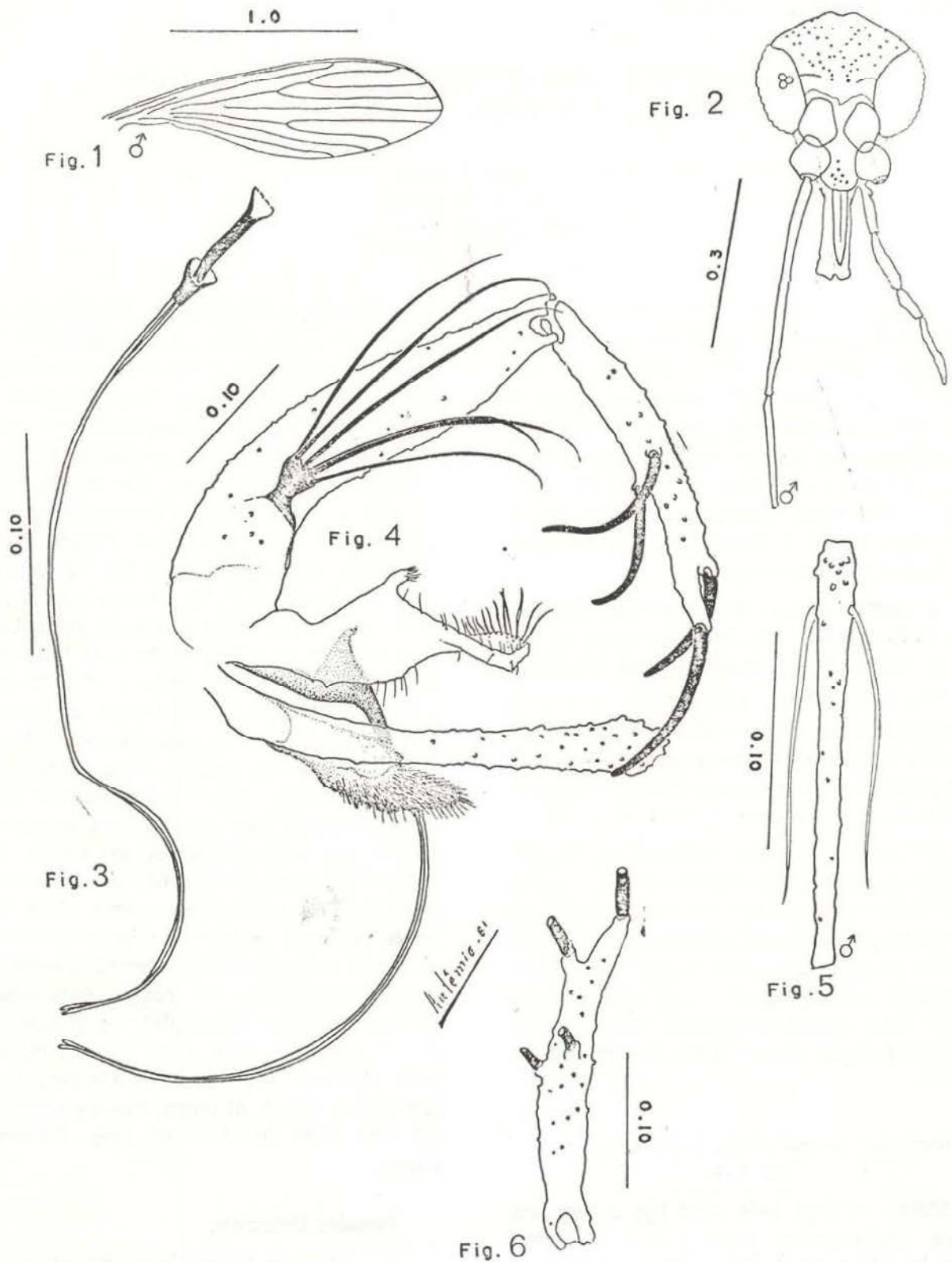
Male: A large pale sand fly; notum and pleura unpigmented, straw yellow in color, wing length 1.87 (1.81 - 1.98); width 0.50 (0.49 - 0.53). Cibarium without teeth remnants, cibarial arch complete, no pigment patch visi-

ble. Pharynx 0.19 unarmed. Head height about 0.33 (0.30 - 0.33); width 0.31 (0.29 - 0.30). Eyes large, separated by 0.12 or by distance equal to 7.2 facet diameters. Flagellomere I, 0.45 (0.39 - 0.44), combined length of II + III subequal to slightly longer than that of I. Ascoids without posterior spurs, the distal tips of ascoids on II not reaching beyond flagellomere. Labrum 0.19 (0.15 - 0.19) long. Length of palpal segments (holotype): 1 (0.04), 2 (0.07), 3 (0.12), 4 (0.07), 5 (0.15). Pleura with 10 (9-10) upper and 1 (1,2) lower episternal setae. Length of wing vein sections: *alpha* 0.46 (0.38 - 0.47), *beta* 0.20 (0.17 - 0.20), *delta* 0.17 (0.09 - 0.17), *gamma* 0.34 (0.31 - 0.32). Length of femur, tibia and basitarsus of one paratype: foreleg, 0.88, 1.29, 0.77; midleg 0.86, 1.52, 0.84; hindleg missing. *Genitalia:* style 0.27 (0.25 - 0.27) long with four major spines arranged as shown, no subterminal setae. Coxite 0.39 (0.35 - 0.38) long 0.07 (0.07) wide, bearing a basal median group of six surong thick hairs implanted on a prominent tubercule; both the tubercule and the hairs oriented upwards, as figured, paralleling the coxite. Paramere as shown. Aedeagus moderately pigmented, as drawn. Genital pump 0.19 (0.18 - 0.19) long, each filament 1.31 (1.25 - 1.47) long or 6.8 (6.6 - 7.8) X length of pump, tips simple. Lateral lobe 0.34 (0.32 - 0.36) long. Cercus as shown.

Female: Unknown.

Type data: Holotype; male, Brasil, Amazonas, AM-010 km 24 CDC 1 m 8-04-81, J. Arias, R. Freitas & J. Vidal coll. 3 ♂♂ paratypes.

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Figs. 1-6 — *Lutzomyia pennyi*: 1) — male wing; 2) — male head; 3) — Genital pump and filaments; 4) — Male genitalia lateral view; 5) — Male flagellomere I showing ascoids; 6) — Style. All figures drawn from a paratype from the Km 24 collection site. Scale in millimeters.

same data. 1 ♂ paratype Brasil, Amazonas, AM-010 km 133 CDC 1 m 15-03-79, J. Arias, R. Freitas & J. Vidal coll.

Holotype and a paratype to be deposited at Instituto Nacional de Pesquisas da Amazônia, Manaus. Other paratypes to be deposited at the U.S. National Museum (Natural History) Washington, University of São Paulo Museu de Zoologia, Brazil, and Florida State Arthropod Collection, Gainesville, Florida.

DISCUSSION

Lutzomyia penny does not fit into any sub-generic group of sand flies as defined by Theodor (1965) or Martins *et al.* (1978). Even though this species shares many characters with those in the species group *gasparviannai* the fifth palpal segment is shorter than the combined length of the third and fourth, the coloration is much paler, the paramere is more complex, the genital filament/pump ratio is higher, and the coxite tuft is implanted in a sclerotized rather than a fleshy tubercle. Therefore, for the present time, we prefer to leave this as an ungrouped species.

Recently Arias & Freitas (1981) published a 13 month sand fly survey in which over 20,000 sand flies were captured only three km from the last site where this species was taken. Hundreds of other CDC light trap catches at various heights from the forest floor, as well as flight trap, Disney trap and emergence trap

catches have been examined within a 50 km radius of this site during past seven years and this species was not taken, indicating the rarity of collectons of *L. pennyi* in this region.

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SUMÁRIO

Lutzomyia pennyi Arias & Freitas sp.n. é descrita e ilustrada no sexo masculino. Esta espécie é raramente encontrada na região de Manaus, Amazonas, Brasil.

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