

**A CORRECTION TO THE DESCRIPTION
OF THE FEMALE OF
PHLEBOTOMUS (LARROUSSIUS) LONGIPES
PARROT AND MARTIN, 1939 (DIPTERA: PSYCHODIDAE)**

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SUMMARY

The distal extremities of the spermathecal ducts of the sub-genus *Larroussius* (Phlebotomine sandflies) are of great importance for their identification. The topotypes of *Phlebotomus (Larroussius) longipes* have two lateral lobes at the distal extremities of the spermathecal ducts. In the syntypes these lobes are present.

They are not, however, described in the princeps description although they are characteristic of the species. The authors describe the spermathecae and their ducts after dissection; the distal ends of the ducts are similar to those of *P. pedifer* and *P. perniciosus* but small differences separate the species.

RÉSUMÉ : Rectification de la description de la femelle de *Phlebotomus (Larroussius) longipes* Parrot et Martin, 1939 (Diptera : Psychodidae).

L'étude morphologique de la partie distale des conduits des spermathèques des phlébotomes du sous-genre *Larroussius* s'est révélée d'une grande importance pour leur identification. L'examen de topotypes de *Phlebotomus (Larroussius) longipes* révèle deux lobes latéraux à la partie distale des conduits des spermathèques. Dans les syntypes de *P. longipes*, ces diverticules, typiques de l'espèce

mais non mentionnés dans la description princeps, sont visibles. Les auteurs décrivent les spermathèques et leurs conduits après dissection. Bien que la partie distale des conduits ressemble à ceux de *P. pedifer* et *P. perniciosus*, de légères différences, suffisamment marquées, permettent toutefois de les séparer.

The original description of *Phlebotomus (Larroussius) longipes* Parrot and Martin includes a figure of the distal extremities of the spermathecal ducts (Fig. 1). We have examined specimens of this species collected in the type locality in Ethiopia (Addis Ababa) and have found that the bases of the ducts are not as figured by Parrot and Martin (1939). At first we assumed we had found a hitherto undescribed species but males of the only *Larroussius* species caught with the females are indistinguishable from the males of *P. longipes* as described by Parrot and Martin (1939) and Lewis *et al.* (1972). To explain the difference between our females and the original description, we examined three syntype females in the collection of the Natural History Museum, London.

These specimens are mounted in Canada Balsam with

the spermathecae and ducts undissected and, therefore, difficult to see. Nevertheless, the bases of the ducts of one specimen are visible under phase contrast and interference illumination sufficiently well to see that they have lateral lobes (Fig. 2) which were not figured by Parrot and Martin, but which are similar in position, size and shape to those of our topotypes.

In most original descriptions of *Larroussius* species there are no illustrations of the base of the spermathecal ducts and the omission in Parrot and Martin's description of *P. longipes* does not affect the validity of the species. In this subgenus, the morphology of the base of the ducts has been shown to be of particular value in identifying females (Léger *et al.*, 1983; Killick-Kendrick *et al.*, 1991). Before this feature was used, females of three sympatric East African species (*P. aculeatus* Lewis, Minter and Ashford, *P. longipes* and *P. pedifer* Lewis, Mutinga and Ashford) were inseparable (Lewis, 1982) and another (*P. elgonensis* Ngoka, Madel and Mutinga) had wrongly been synonymized with *P. aculeatus* (Killick-Kendrick *et al.*, 1993). Because of the practical importance of this character for species of the subgenus *Larroussius*, a description is given below of the dissected spermathecae and ducts of

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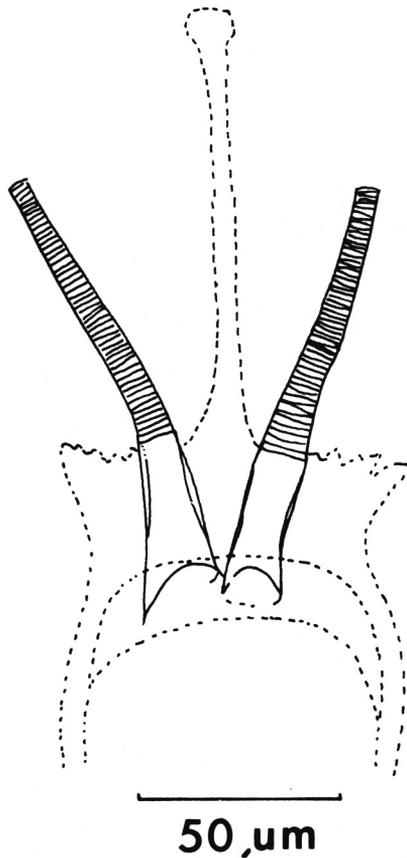


FIG. 1. — Parrot and Martin's (1939) figure of the spermathecal duct bases of *Phlebotomus longipes*.

P. longipes collected in April, 1993, in the compound of the Institute of Pathobiology, Addis Ababa University, Ethiopia. The flies, caught on a concrete wall of an empty house with a mouth aspirator, were killed and put directly into Berlese's fluid. The dissections were done in the same fluid in which the specimens were also mounted. Measurements were from drawings made at known magnifications with a microscope fitted with a drawing tube. They are given as the mean \pm standard deviation followed by the range. Fourteen measurements were made except where otherwise stated.

The spermatheca is composed of 11-13 rings ($n = 12$) all of similar diameter [15.8 ± 1.2 (13-17) μm] except for 2 or 3 small rings at the two ends. The length of the spermatheca is 43.6 ± 4.7 (36-51) μm ($n = 11$). The terminal process is notably long [39.0 ± 4.0 (34-43) μm]. The duct is comparatively short and thick, with transverse striations from the spermatheca to where the base begins to widen. The length of the striated part is 169.7 ± 16.6 (147-183) μm and that of the swollen distal extremity is 39.2 ± 5.0 (34-59) μm ($n = 13$). About half of each swollen part lies inside the genital atrium. There is no common duct but

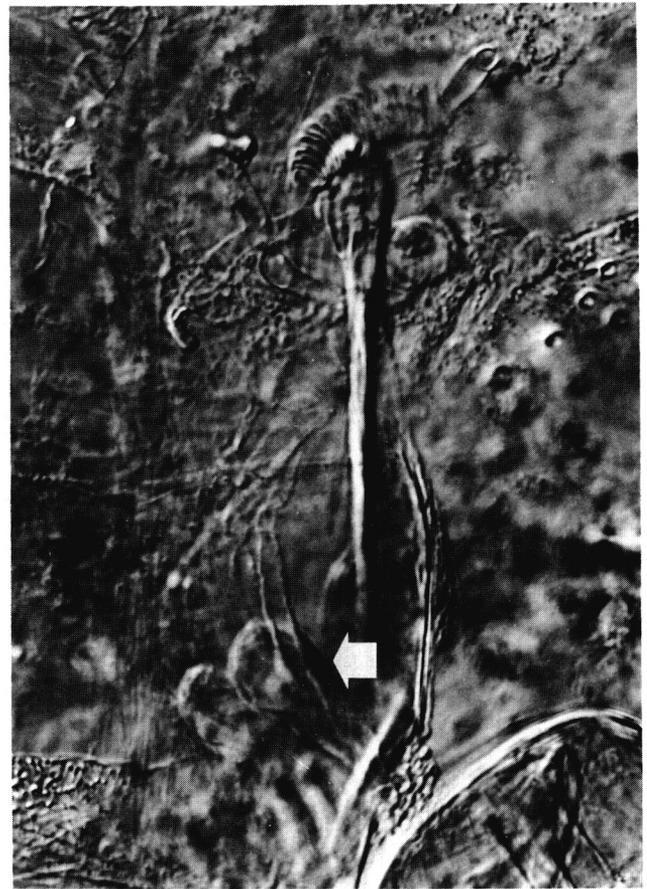


FIG. 2. — Lobes (arrowed) at the bases of the spermathecal ducts of a female syntype of *Phlebotomus longipes*. (Interference microscopy).

there appears to be a common opening. The part from just above the termination of the striations to the duct opening is sheathed in chitin. At the base of each duct is a prominent lateral lobe 28.7 ± 3.9 (21-34) μm in length and 21.3 ± 7.4 (15-25) μm in with. Cavities inside the lobes are triangular in shape, with pointed tips (Fig. 3).

The lateral lobes on the duct base are similar to those of *P. perniciosus* (Léger *et al.*, 1983) and *P. pedifer* (Killick-Kendrick *et al.*, 1991). There are, however, differences in the shapes of the lobes and sizes of the swollen parts of the ducts which, in specimens with well displayed bases, enable the species to be separated.

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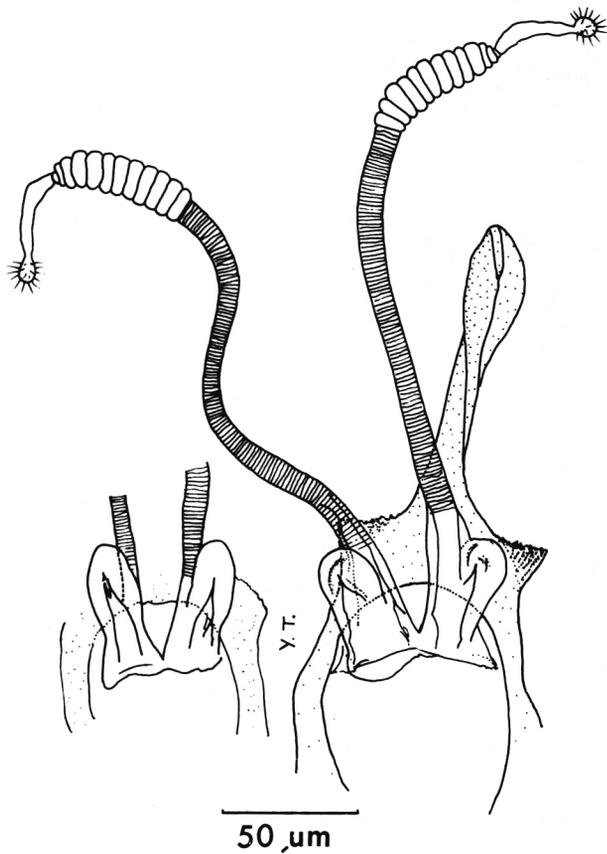


FIG. 3. — Spermathecae and spermathecal ducts of female *P. longipes* from Addis Ababa, Ethiopia (type locality).

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