

Description of sandfly (diptera: Psychodidae: Phlebotominae) species from genus *Sergentomyia* (Franca and parrot, 1920) in Sri Lanka

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Abstract

Leishmaniasis, mainly Cutaneous Leishmaniasis (CL), is a major public health concern in Sri Lanka. Although, the vector for any form of the disease is yet to be clearly discriminated in the country, a limited study reported the potential role of *Phlebotomus argentipes* s.l. in the transmission of *Leishmania donovani*, the causative agent of CL in Sri Lanka. In a survey from three Cutaneous Leishmaniasis (CL) endemic localities in Sri Lanka, a rich diversity of the genus *Sergentomyia* was discovered. Eleven species belong to three subgenera namely, *Parrotomyia*, *Neophlebotomus* and *Grassomyia* were identified and their detail morphology is described in this report. Only three species of *Parrotomyia* and one from each *Neophlebotomus* and *Grassomyia* have been reported previously from Sri Lanka. Eight species of *Parrotomyia*, namely *Se. (Par.) rudnicki*, *Se. (Par.) babu insularis*, *Se. (Par.) modii*, *Se. (Par.) baghdadis*, *Se. (Par.) barraudi*, *Se. (Par.) grekovi*, *Se. (Par.) bailyi* and *Se. (Par.)* species were recorded during the survey. *Sergentomyia (Neophlebotomus) malayae*, *Sergentomyia (Grassomyia) dreyfussi turkestanica* and *Se. (Gra.) indica* belong to the subgenera *Neophlebotomus* and *Grassomyia* were also recorded during this study. This is the first record for *Sergentomyia (Neophlebotomus) malayae* and *Sergentomyia (Grassomyia) dreyfussi turkestanica* and for all the species of *Parrotomyia* except *Se. (Par.) babu insularis* and *Se. (Par.) barraudi*. The study warrants for an extensive sandfly survey, especially in endemic areas, as *Sergentomyia* species are now considered as potential vectors for many parasites including *Leishmania*.

Author keywords

Endemic; Leishmaniasis; Morphology; Sandflies; *Sergentomyia*

Indexed keywords

Species Index: Diptera; *Grassomyia*; *Leishmania donovani*; Phlebotominae; *Phlebotomus argentipes*; Psittacidae; Psychodidae; *Sergentomyia*