Studies were conducted in 1989-90 to identify the phlebotomine sandflies found in Nairobi, Kenya. These studies were also aimed at determining their numbers as well as assessing the effects of seasonal changes on the sandfly population. Four trapping methods, namely, light traps, sticky traps, aspiration and human bait were employed. 8 species and 1 undescribed species of *Sergentomyia* were recorded over a period of 6 months. The identified species were *Phlebotomus guggisbergi*, *P. rodhaini*, *S. adleri*, *S. harveyi*, *S. clydei*, *S. teesdalei*, *S. squamipleuris* and *S. bedfordi*. Most of the sandfly species trapped showed seasonal prevalences. The seasonal variation was closely related to the weather conditions. Sandflies were found in termite mounds, animal burrows, caves and dugouts, some of which were near human habitations. Termite mounds and animal burrows were the most preferred habitats.