TEMPORAL VARIATIONS IN RELATIVE DENSITIES OF INDOOR RESTING MOSQUITOES IN KANDY

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The present study attempts to identify key climatic factors which determine the temporal changes in relative densities of indoor resting mosquito populations in an urbanised situation with a view to assesing the possibilities of predicting such changes. The study was carried out in Kandy during the September 1985 - August 1986 period. Sampling was done in five residential sites. From each site 20 - 25 houses were visited monthly and indoor resting mosqitoes were collected by the hand catch method on a fixed time basis. Monthly mean densities were expressed as geometric mean of adults per man hour. The main species were Culex quinquefasciatus (82.7%), Aedes aegypti (10.3%), Armigeres subalbatus (2.7%) and Culex pseudovishnui (2.1%). Patterns of monthly density fluctuations of Cx quinquefasciatus and Ae aegypti were found to be different among the five sites indicating the influence of localised factors affecting mosquito densities in this urbanised habitat. Monthly overall densities of these two species were not significantly correlated with the monthly rainfall, monthly mean minimum and mean maximum temperatures and monthly mean relative humidity. A major peak in the density of Cx pseudovishnui was observed in December in four of the sites. Two main peaks, one in November and the other in June were seen in the other site. Overall indices of this species were not significantly correlated with above mentioned climatic factors. No marked changes were observed in monthly indices of Ar subalbatus which were low throughout the study. It appears that the climatic factors are of little value in predicting temporal changes in relative densities of indoor resting mosquito populations in an urban situation.

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