TEMPORAL VARIATIONS IN RELATIVE DENSITIES OF INDOOR RESTING MOSQUITOES IN MAHAWELI SYSTEM 'C'.

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In order to follow up the dynamics of indoor resting mosquito populations in an area designated for mass human agricultural settlement, the present study was carried out in Zone 4, Mahaweli System C, during the period January - December 1987. Sampling was done in three sites, two settlement units and a proposed township. The hand catch method on a fixed time basis was employed to collect indoor resting mosquitoes from 20 house in each of the settlement units and 10 houses from the township per month. Monthly mean densities were expressed as geometric mean of adults per man hour. The main species were Culex quinquefasciatus (91.7%) and Anopheles subpictus (6.6%). Density fluctuations of Cx quinquefasciatus were similar in the three sites. Peak densities occured during the January - March post monsoonal period. In April, densities dropped dramatically declining to even lower levels during the dry season. Densities rose sharply in October with the onset of the north-eastern monsoon. Mean monthly densities were significantly and positively correlated with monthly rainfall, and significantly and negatively correlated with mean minimum and mean maximum temperatures. There was no correlation with relative humidity. Anopheles subpictus occured after April and was found only in the two settlement units. A similar density fluctuation pattern was observed in these two sites, with peaks in June and December. There was no significant correlation between the densities and climatological factors monitored. Thus, at least in the case of Cx quinquefasciatus the temperatures and rainfall explained the temporal changes in density in Mahaweli System C.

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