Of the various communicable diseases prevalent in Kerala, mosquito-borne infections seem to be contributing to major public health issues. Filariasis still remains an endemic disease in majority of districts. The role of transmission of filarial parasites by Culex quinquefasciatus mosquito was established in the erstwhile Travancore by M.O.T Iyengar in 1938. Early in 1914, J.H.Horne had established the vector capabilities of Anopheles fluviatilis mosquito during the outbreak of malaria in Wayanad. Many anophelines were found naturally infected with malaria parasites in Travancore by M.O.T.Iyengar (1934), Covell.G (1939) and Mathew M.I. (1939). The malaria scenario in Kerala had very much improved in the State early in 1960, when the governments had implemented intensified control activities as part of the nation-wide malaria control programme of India. But by 1990, the situation of the state had worsened with focal and local outbreaks of malaria from the north to south districts. During mid 1990s, emergence of mosquito-borne viral diseases was noticed in Kerala, like several northern states of the Indian sub-continent.

Though investigations were conducted in these situations, a detailed picture of mosquito species prevalent in the districts of Kerala was not brought to light. In these contexts, the present research work was initiated to study the prevalence of mosquitoes in the districts of Thiruvananthapuram and Kottayam. The study has focused on the species configuration, distribution, density status, diversity and seasonal fluctuations of mosquito fauna of these districts. Embodying the observations of the present research work, this thesis provides information on the prevalence of thirty three species of mosquitoes of the study districts. The distribution of these mosquitoes in Thiruvananthapuram and Kottayam districts, among the areas of lowland, midland and highland terrains and from rural and urban eco-regions are dealt with. Further, longitudinal observations on prevalence of mosquitoes for five continuous years (from September 2002 to August 2007) are given. The density and diversity patterns are also presented in this report to express the treasure of mosquito fauna of the study area.
Moreover, the resting and host-seeking preference of the mosquito populations elicited through this study is given. A blueprint of established vectors of major diseases prevalent in the study districts is also presented.

It is hoped that the information contained in this thesis would be a useful guideline to students, researchers, and those associated with control of mosquito-borne diseases in Kerala.

November, 2009

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