

A-26: Night human-biting mosquitoes during the Northeast monsoon season in Nikawehera

R Kulasekera, K A Srikrishnaraj, R Ramasamy, M S Ramasamy
(Institute of Fundamental Studies, Kandy)

Nikawehera is a farming village in the intermediate rainfall zone. During the period October 1990 - September 1991, malaria was hyperendemic with peak transmission occurring in the NE monsoon season. Collections of night biting mosquitoes were

made at Nikawehera between 18.00h - 06 00h by a team of volunteers at monthly intervals during October 1991 to April 1992. Thirteen *Anopheles*, *Culex*, 3 *Aedes*, 3 *Mansonia* and 1 *Armigeres* species were identified, including vectors of malaria, bancroftian filariasis, Japanese encephalitis and dengue fever. The prevalence of some anophelines during this period differed markedly from that observed previously. *An. culicifacies* continued to be the main vector of malaria with a maximum human biting rate (HBR) of 1.35 in December, when the highest rainfall was recorded. Other malaria vectors, *An. tessellatus*, *An. annularis* either absent or present in low numbers in the previous transmission season, were collected throughout this study with maximum HBR being recorded in December. The incidence of malaria during this period of study was lower than during the NE monsoon of 1990-1991.

The maximum HBR for culicines was recorded in December. *Cx. fuscocephala* and *Cx. quinquefasciatus* were the predominant human biting species during this period. The numbers of *Culex* populations were less affected by rainfall than the anophelines. Human biting of *An. culicifacies* peaked between 18 00h and 23 00h and *Cx. fuscocephala* and *Cx. quinquefasciatus* showed peak biting between midnight and 06 00h. This study demonstrates significant differences between malaria transmission patterns and vector populations between two consecutive NE monsoon seasons.