

Density of *Aedes aegypti* and *Aedes albopictus* in some dengue endemic areas

GPGMD Hapugoda¹, NR de Silva², W Abeyewickrema², S Rajamanthri³,

1. Field Research and Services Center, Faculty of Medicine, University of Kelaniya, Uhumiya, Kurunegala.
 2. Department of Parasitology, University of Kelaniya, Ragama.
 3. Regional Epidemiologist, Ministry of Health, Kurunegala.
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ABSTRACT

The incidence of Dengue fever (DF) / Dengue haemorrhagic fever (DHF) has increased cyclically since the first outbreak in Sri Lanka in 1989. *Aedes aegypti* is identified as the predominant vector of DF/DHF and *Aedes albopictus* is identified as an important vector in the absence of *Ae. aegypti*. In this study, larval surveillance was carried out in fixed monitoring stations and random monitoring stations in order to assess the role of two *Aedes* species in some dengue endemic areas. The fixed monitoring stations were selected based on the recorded incidence of DF/DHF in and around Kurunegala district (North Western Province) during 1996-1998. Ten premises within one fixed monitoring station were checked weekly for mosquito breeding using ovitraps and average monthly ovitrap index (%) was calculated. During outbreaks, larval surveillance was conducted in 25 random monitoring stations including 109 houses, which were selected, based on serologically confirmed DF/DHF cases. Observations on average monthly ovitrap index (%) of the fixed monitoring stations showed that highest ovitrap index of *Ae. aegypti* was in Kurunegala town area. Ovitrap index of *Ae. albopictus* was higher than that of *Ae. aegypti* throughout the study period in all fixed monitoring stations. Data obtained from random monitoring stations in North Western and Western Provinces revealed that only *Ae. albopictus* larvae were present in 13 out of 22 stations monitored. There were no stations in which only *Ae. aegypti* were present. Results suggest that *Ae. albopictus* may play a major role in transmitting dengue in some localities in Sri Lanka.