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Breeding preference of *Aedes aegypti* Linnaeus and *Aedes albopictus* Skuse in the Kandy District

M A S T Fernando* and P H D Kusumawathie

Regional Malaria Office, Department of Health, Kandy

Dengue and dengue hemorrhagic fever are major public health problems in Sri Lanka. Kandy District is one of the highly affected districts in the country by dengue. As source reduction is the most cost effective method of dengue vector control, knowledge on breeding preference of dengue vectors, *Ae. aegypti* and *Ae. albopictus*is is very important in application of appropriate vector control interventions. In this study, 15 Medical Officer Health (MOH) areas in the Kandy District, namely, MOH Akurana, Bambaradeniya, Galagedara, Gampola, Gangawatakorale, Warallagama, Mahanuwara Municipal Council, Kundasale, Manikhinna, Nawalapitiya, Waththegama, Thalathuoya, Poojapitiya, Udunuwara and Yatinuwara were selected for dengue vector surveillance. Entomological surveillance was conducted in each MOH area on a monthly basis for a period of 12 months from January to December 2015 by trained entomological teams attached to the Regional Office of the Anti Malaria Campaign and MOH Offices. In each survey, 100 randomly selected houses in dengue case reported localities in each MOH were surveyed using dipping and pipetting methods. *Aedes* breeding places were recorded, species identified and the Container Index (CI) calculated for *Ae. aegypti* and *Ae. albopictus* for each breeding place. The study revealed 25 different types of breeding sites in the areas (n=25,679) throughout the surveillance. The major water holding containers with water were water collecting barrels (22%, n=5585) followed by discarded items (19%, n=4864), water collecting cemented tanks (18%, n=4677), refrigerator trays (16%, n=4017) respectively. There were 383 active breeding sites for *Ae. aegypti* of which discarded items (CI-0.97-0.21, n=111) was the highest, followed by water collecting cemented tanks (CI-0.88-0, n=89), water collecting barrels (CI-0.86-0,n=74), refrigerator trays (CI-0.31-0, n=26) and tyres (CI-0.41-0, n=25) respectively. Main breeding sites of *Ae. albopictus* were discarded items (CI-2.85-0.64,n=413), barrels (CI-1.72-0.42, n=241), refrigerator treys (CI-1.46-0.35, n=216), water collecting cemented tanks (CI-1.33-0.41, n=192) and tyres (CI-1.04-0.30, n=147), respectively. The results indicated that discarded items, water storage containers and refrigerator trays are the preferred breeding places of dengue vectors. Thus, providing a continuous water supply, establishing proper waste management systems and conducting appropriate awareness programmes to encourage source reduction by the community would greatly help to reduce the dengue vector breeding places, vector densities and thereby the dengue incidence in the Kandy District.

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Thilanfernando@gamil.com Tel: +94 715933494