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KEY BREEDING SITES OF *Aedes* MOSQUITOES IN THE MATARA DISTRICT, SRI LANKA

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Dengue is one of the major public health concerns in Sri Lanka. Due to the absence of a vaccine or any other promising drug, identifying and eliminating vector breeding sites remain the most important aspect of controlling disease transmission. *Aedes* vector breeding sites in Sri Lanka vary from district to district. Therefore, identifying prominent breeding sites within these districts is crucial. This study aimed to review common *Aedes* vector breeding places and temporal variation in these sites from 2020 to 2022 in the Matara District. *Aedes* vector larval surveillance was conducted monthly on all types of premises in Medical Officer of Health (MOH) areas in the Matara District in 2020, 2021, and 2022. The recorded data from the larval surveillance was combined and analysed independently to identify the main breeding areas for *Aedes aegypti* and *Aedes albopictus. Aedes aegypti*-positive containers found during the study period were 178 (9.2%), 331 (13.3%), and 490 (18.0%) in 2020, 2021, and 2022, respectively. Water storage (33.0%) and discarded containers (26.0%) were the prominent breeding sites for *Ae. aegypti* in the Matara District. In addition, tyres (11.0%), ornamental items (7.0%), pet feeding items (3.0%), and other miscellaneous items (13.0%) were found positive. *Aedes albopictus*-positive containers found during the study period were in 1749 (90.7%), 2187 (86.7%), and 2232 (82.0%) in 2020, 2021, and 2022, respectively. The primary breeding sites for *Ae. albopictus* were identified as water storage containers (30.0%), discarded containers (28.0%), ornamental items (12.0%), tyres (8.0%) and covering items (6.0%). *Aedes albopictus* was the dominant vector present in the Matara District. Water storage containers and discarded items were prominent breeding sites of both dengue vectors. Therefore, keeping water storage containers closed when not in use and maintaining a proper garbage disposal system may help reduce the dengue vector density in the Matara District.

Keywords: *Aedes*, Dengue disease, Matara District, Vector breeding sites